



Columbia University Bulletin of Information

COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

ANNOUNCEMENT

1926-1927

PUBLISHED BY
Columbia University
in the City of New York
MORNINGSIDE HEIGHTS
NEW YORK, N. Y.

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Twenty-Sixth Series, No. 48

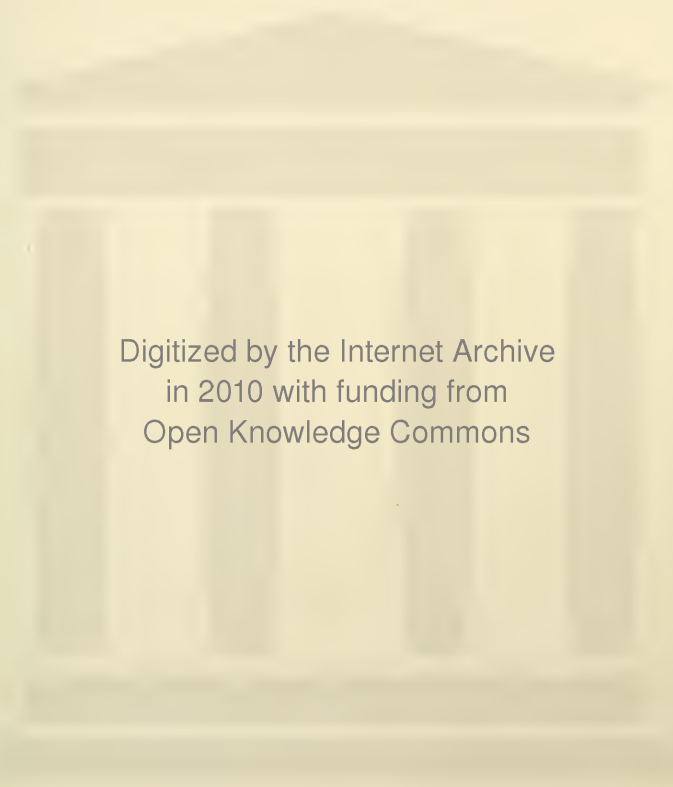
August 28, 1926

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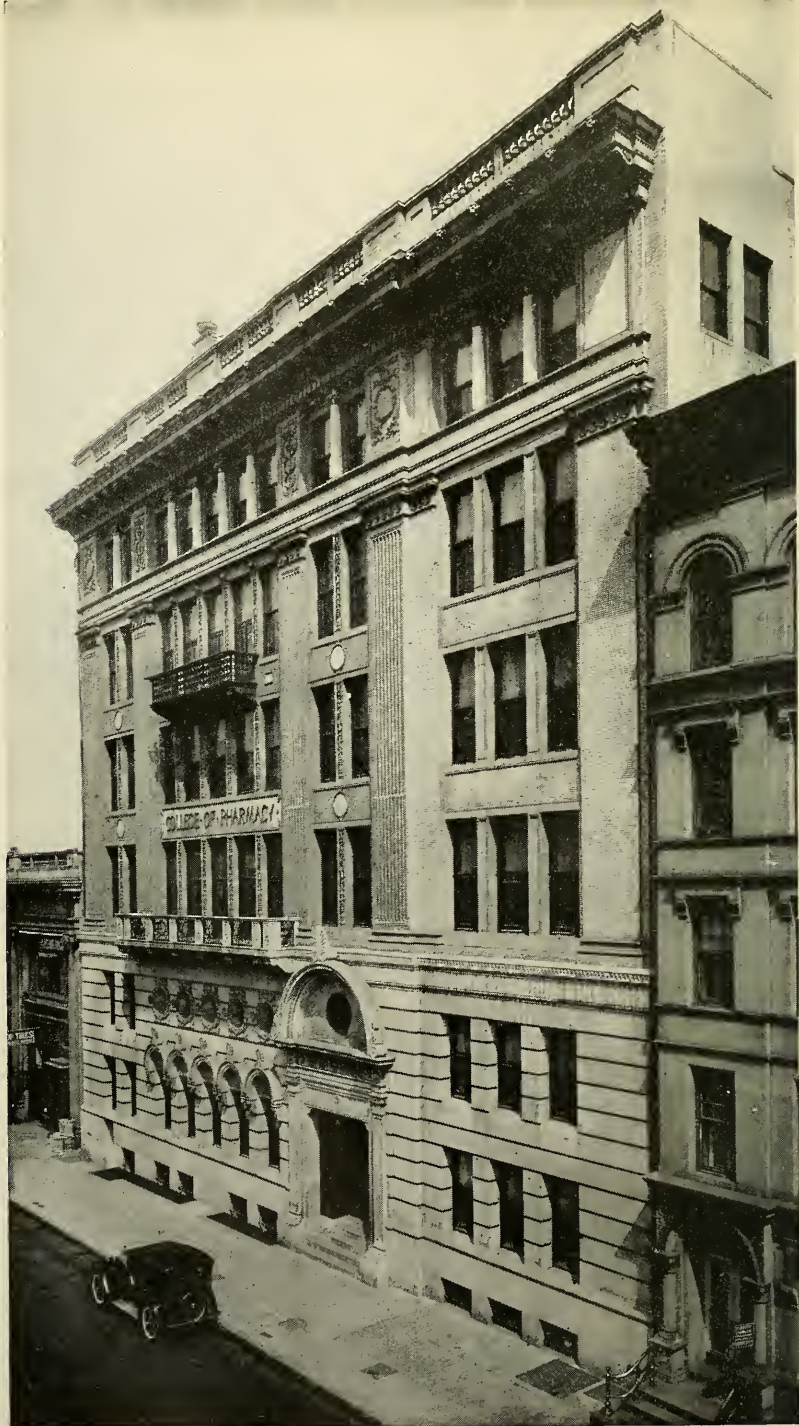
1. Annual Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.
3. Other publications of the University, including the annual Directory of Officers and Students, are issued as Bulletins.

C. P. 20,000—1926

For special or more detailed information than is given in this announcement, applicants are requested to address the Registrar of the College, 115 West Sixty-eighth Street. His office hours are as follows: From September 1, 1926 to May 1, 1927, daily except Saturdays, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a. m. to 4 p. m.; Saturdays, 9:30 a. m. to 12 m.



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COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

113-119 WEST SIXTY-EIGHTH STREET



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1926

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY									
Jan.	..	3	4	5	6	7	8	1	2	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Feb.	..	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
March	..	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
April	..	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	..	..	..	
May	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	..	
June	..	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
July	..	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Aug.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sept.	..	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	..	..	..	..	
Oct.	..	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	..	
Nov.	..	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Dec.	..	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	..	..	..	..

1927

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Jan.	..	..	..	..	..	1	2	May	1	2	3	4	5	6	7	Sept.	..	..	..	..	1	2	3
	2	3	4	5	6	7	8			8	9	10	11	12	13			4	5	6	7	8	9
	9	10	11	12	13	14	15			15	16	17	18	19	20			11	12	13	14	15	16
	16	17	18	19	20	21	22			22	23	24	25	26	27			18	19	20	21	22	23
	23	24	25	26	27	28	29			29	30	31	..	..	..			25	26	27	28	29	30
	30	31	..	..	..	..	..			..	..	..	1	2	3			..	..	..	..	..	..
Feb.	..	1	2	3	4	5		June	..	..	..	1	2	3	4	Oct.	..	..	..	..	..	1	2
	6	7	8	9	10	11	12			5	6	7	8	9	10			2	3	4	5	6	7
	13	14	15	16	17	18	19			12	13	14	15	16	17			9	10	11	12	13	14
	20	21	22	23	24	25	26			19	20	21	22	23	24			16	17	18	19	20	21
	27	28	..	..	..	..	..			26	27	28	29	30	..			23	24	25	26	27	28
March	..	1	2	3	4	5		July	..	..	..	..	..	1	2	Nov.	..	..	..	..	..	..	..
	6	7	8	9	10	11	12			3	4	5	6	7	8			30	31	..	..	..	..
	13	14	15	16	17	18	19			10	11	12	13	14	15			..	..	1	2	3	4
	20	21	22	23	24	25	26			17	18	19	20	21	22			6	7	8	9	10	11
	27	28	29	30	31	..	..			24	25	26	27	28	29			13	14	15	16	17	18
April	..	..	..	..	1	2		Aug.	..	..	1	2	3	4	5	Dec.	..	..	..	..	..	..	..
	3	4	5	6	7	8	9			31	..	..	..	..	..			20	21	22	23	24	25
	10	11	12	13	14	15	16			..	1	2	3	4	5			27	28	29	30	..	..
	17	18	19	20	21	22	23			7	8	9	10	11	12			4	5	6	7	8	9
	24	25	26	27	28	29	30			14	15	16	17	18	19			11	12	13	14	15	16
	..	..	..	..	..	..	..			21	22	23	24	25	26			18	19	20	21	22	23
	..	..	..	..	..	..	..			28	29	30	31	..	..			25	26	27	28	29	30

1928

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Jan.	1	2	3	4	5	6	7	May	..	..	1	2	3	4	5	Sept.	..	..	..	..	..	1	2
	8	9	10	11	12	13	14			6	7	8	9	10	11			2	3	4	5	6	7
	15	16	17	18	19	20	21			13	14	15	16	17	18			9	10	11	12	13	14
	22	23	24	25	26	27	28			20	21	22	23	24	25			16	17	18	19	20	21
	29	30	31	..	..	..	..			27	28	29	30	31	..			23	24	25	26	27	28
	..	..	..	..	..	..	..			..	..	..	..	..	..			30	..	..	..	..	..
Feb.	..	..	..	1	2	3	4	June	..	..	..	..	..	1	2	Oct.	..	..	..	..	..	..	..
	5	6	7	8	9	10	11			..	..	..	..	..	..			..	1	2	3	4	5
	12	13	14	15	16	17	18			3	4	5	6	7	8			7	8	9	10	11	12
	19	20	21	22	23	24	25			10	11	12	13	14	15			14	15	16	17	18	19
	26	27	28	29	..	..	..			17	18	19	20	21	22			21	22	23	24	25	26
March	..	..	..	..	..	..	..	July	..	..	..	..	..	..	..	Nov.	..	..	..	..	..	..	..
	4	5	6	7	8	9	10			24	25	26	27	28	29			28	29	30	31	..	..
	11	12	13	14	15	16	17			1	2	3	4	5	6			..	..	1	2	3	4
	18	19	20	21	22	23	24			8	9	10	11	12	13			4	5	6	7	8	9
	25	26	27	28	29	30	31			15	16	17	18	19	20			11	12	13	14	15	16
April	..	1	2	3	4	5	6	Aug.	..	..	..	..	..	..	..	Dec.	..	..	..	..	..	..	..
	7	8	9	10	11	12	13			..	1	2	3	4	5			18	19	20	21	22	23
	14	15	16	17	18	19	20			5	6	7	8	9	10			25	26	27	28	29	30
	21	22	23	24	25	26	27			12	13	14	15	16	17			..	..	..	..	..	..
	28	29	30	..	..	..	..			19	20	21	22	23	24			16	17	18	19	20	21
	..	..	..	..	..	..	..			26	27	28	29	30	31			23	24	25	26	27	28
	..	..	..	..	..	..	..			..	..	..	..	..	..			30	31	..	..	..	..

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HOWELL FOSTER, 1927	FRANK C. STARR, 1928
CHARLES J. McCLOSKEY, 1927	RICHARD H. TIMMERMANN, 1928
WILLIAM P. RITCHEY, 1927	WILLIAM S. GORDON, 1929
HERMAN WALTER, 1927	IRVING MCKESSON, 1929
CHARLES FRIEDGEN, 1928	ALBERT E. STRATTON, 1929
ADOLPH HENNING, 1928	THEODORE WEICKER, 1929

JACOB WEIL, 1929

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IRVING MCKESSON

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EDWARD PLAUT

JACOB WEIL

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HENRY V. ARNY, Ph.M., Ph.D., F.C.S.....	<i>Professor of Chemistry</i>
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WILLIAM J. MACSATA, Ph. Ch.....	<i>Instructor in Analytical Chemistry</i>
ABRAHAM TAUB, B.S.....	<i>Instructor in Chemistry and Physics</i>
PHILIP KERKER, A.B.....	<i>Instructor in Materia Medica</i>
SAUL KAYE, Ph.G.....	<i>Instructor in Pharmacy</i>
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MAXWELL KARSHAN, B.S., M.A.....	<i>Instructor in Biological Chemistry</i>
WILLIAM KEENAN, Ph.G.....	<i>Instructor in Materia Medica</i>
MILTON D. SEWELL, Ph.G., B.S.....	<i>Instructor in Chemistry and Physics</i>

LECTURER

ISIDORE NEUSTAEDTER, Phar.D., LL.B.. *Lecturer in Pharmaceutical Jurisprudence*

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FRANK D. FACKENTHAL, A.B..... *Secretary of the University*
HENRY LEE NORRIS, M.E..... *Director of Works*
HENRY V. ARNY, Ph.D..... *Librarian of the College of Pharmacy*
ESTELLE WEINTRAUB..... *Assistant Librarian of the College of Pharmacy*
ADAM LEROY JONES, Ph.D..... *Director of University Admissions*
CHARLES S. DANIELSON..... *Bursar of the University*

GENERAL STATEMENT

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the School of Medicine with courses leading to the degree of Doctor of Medicine; the Schools of Mines, Engineering, and Chemistry, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; the non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy. In addition to these Schools and Faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; and the College of Pharmacy of the City of New York, with courses leading to the degrees of Pharmaceutical Chemist and Bachelor of Science.

The University maintains three Sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standard of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

REGISTRATION

Before attending any University exercises each student shall present himself at the office of the Registrar and shall there file a registration blank giving such information as may be required for the University records together with a statement of the courses he is authorized to pursue. The places of registration are the general office of the Registrar of the University in University Hall; the College of Physicians and Surgeons, 437 West Fifty-ninth Street; the School of Dental and Oral Surgery, 302 East Thirty-fifth Street; the College of Pharmacy, 113-119 West Sixty-eighth Street; Barnard College; and Teachers College. To complete his registration the student shall pay the required fees.

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The *Announcements* of each College or School, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

The *Announcement* of each School contains a schedule of fees and expenses for the courses in that School.

LIBRARY

The libraries of the University contain about 1,025,000 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture-rooms and laboratories. The Avery Architectural Library, the Law Library, the Ella Weed Library of Barnard College, Teachers College Library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

RESIDENCE HALLS

There are four residence halls for men on South Field: Hartley and Livingston with 300 rooms each, Fernald Hall with 282 and John Jay with 476 rooms. Johnson Hall, on East Field, for women students in the graduate and professional schools and Brooks, and Hewitt Halls, maintained by Barnard College, are dormitories for women. Whittier, Bancroft, Seth Low, Grant and Sarasota Halls are residence halls maintained by Teachers College for its students. The University Commons, in University Hall, provides board at reasonable rates.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.

RELIGIOUS INTERESTS

Service, at which attendance is voluntary, is held in St. Paul's Chapel at noon every week-day during the academic year, except on Saturdays. The Sunday service is held at four o'clock. Earl Hall, the home of the religious, philanthropic, and social organizations and interests of the University, is open daily to all students.

GENERAL ASSEMBLY

The hour between 1:10 and 2 o'clock on Tuesdays is reserved each week throughout the year as a General Assembly hour, and no courses are held at this time in any school of the University, with the exception of the School of Dentistry, the College of Pharmacy and the Summer Session.

MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable

diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Medical Officer.

THE COLLEGE OF PHARMACY

The ninety-seventh annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 20, 1926.

Prospective students should carefully note Rule No. 16 of the Pharmacy Laws of the State of New York, part of which is as follows:

"c Matriculation. A matriculant of any registered school of pharmacy in New York State must possess the 'Registered Apprentice Certificate' before matriculation is completed. Any student who has not had practical experience prior to entering the school or who has had experience in another State than New York, shall be registered as an apprentice by the executive officer of such school."

An amendment to the pharmacy statute, which becomes Chapter 338 of the Laws of 1924, provides that a graduate of a registered school of pharmacy who is not 21 years of age and who has not had the required practical experience in a registered pharmacy, may be admitted to the examination in theoretical subjects only and on passing the same may thereafter be required to take only the practical examination when he has met the statutory requirements of the law. Such applicant does not receive any certificate upon passing the examination and is not granted any right or privilege because he passes the theoretical examination. A second fee of \$10.00 must be paid when taking the practical examination. The amendment became operative on January 1st, 1926.

Students who have served in either the Medical Department of the U. S. Army or the Hospital Corps of the U. S. Navy, and whose discharge papers note such service, may receive credit therefor toward meeting the experience requirement of the State Board of Pharmacy.

The demand for graduates of this College to fill responsible positions as clerks and managers of pharmacies is steadily increasing, and more rapidly than our ability to supply graduates, in spite of the present very large attendance. Coincident with this increasing demand, there has been a steady rise in the rates of compensation.

Still more noteworthy, is the increasing call for graduates of advanced courses, to fill other professional positions.

The general application of federal, state and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which have heretofore, in very many cases, been left to incompetent and irresponsible employees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

Another class of demands that are frequently encountered is for instructors, professors and heads of departments in pharmacy schools. The teaching staffs in the schools of pharmacy of the United States now include nearly one thousand members. However well qualified these instructors may be as to knowledge of the subjects that they are engaged in teaching, few of them have received the special training in the theory and art of teaching which is considered essential

for teachers in other schools. Special provision for this work, as an elective, is called for in the complete pharmaceutical curriculum.

To meet these higher requirements, three and four year courses of study, leading respectively to the degrees of Pharmaceutical Chemist (Ph.Ch.) and Bachelor of Science in Pharmacy (B.S. in Phar.), have been established.

It is particularly worthy of note that the Education Department of the State of New York has adopted these conditions as a State requirement.

THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the City. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus and Amsterdam Avenue lines connect with nearly all surface lines in the City. The completion of the various tunnels under the Hudson, East and Harlem rivers has greatly facilitated and expedited suburban transportation. Central Park is within two blocks of the College, and the American Museum of Natural History and the Medical Department of the University are each about a half-mile away. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College Building was erected after a study of the principal buildings of the kind in this country and abroad. Experience has failed to show any material feature in which it could have been better adapted to the purpose of pharmaceutical instruction, either theoretical or practical, but so great has been the increase in the applications for admission that it has been found necessary to provide greater accommodations in the form of an additional connecting building.

In its planning, two principal objects have been kept in view; first, provision for a large increase in the membership of the first and second-year classes; second, greatly increased and improved facilities for the work of the higher classes. In connection with the latter, extensive provision has been made for research work, by both faculty and special students. Our Library has also been greatly improved, the entire lower floor of the new building having been reserved for its accommodation.

THE LIBRARY

The Library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy. Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the General Library of Columbia University, on Morningside Heights, the Library of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great Library of the Surgeon-General's office at Washington.

The Library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the Library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library copies of the text-books in use by the College may not be removed from the library.

INFORMATION BUREAU

The Information Bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the Bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service.

1. Telephone inquiries will be answered cheerfully without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the Information Bureau, Trafalgar 1733, and will receive information immediately if it is accessible.

2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.

3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.

4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical or botanical periodicals will be prepared for those desiring to pay for such service.

5. As in the past, all visitors to the Library, desiring to do their own research work, will be given courteous attention.

EMPLOYMENT FOR STUDENTS

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

The general plan adopted may be briefly stated as follows: Each pharmacist engages both a first and second year student, who shall work alternately three days during the week and half a day on Sunday. This allows the students half their time for College work and necessary rest. The College lectures are arranged so as to harmonize with this plan.

Any student wishing to secure employment should upon entering College communicate with the Registrar.

Within easy reach of the College are some three thousand pharmacies, where students who have had some experience in pharmacy may obtain employment with salary sufficient to pay the whole or a large part of their expenses while attending College. During recent years the demand for graduates of this College as clerks has been far greater than the available supply.

COURSES OFFERED

Two Regular Courses of study are offered, known respectively as the College Course and the University Course, and three Evening Courses in the Departments of Materia Medica, Pharmacy and Chemistry. A Summer Preparatory Course is provided, designed to enable students so desiring to better prepare themselves for the fall supplementary examinations. A number of special courses have also been established, partly for the benefit of those regular students who desire, for any reason, to specialize in certain lines of work, and partly to provide instruction in individual departments for those who do not desire to take the full course. Certificates, but not diplomas, are awarded to the last-mentioned special students.

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. Members of the University class only are recognized as students of the University, and certain of the University privileges are open only to them.
2. The University Class receives instruction during three, instead of two, years, and the amount of instruction per year is considerably greater.
3. The degree of Graduate in Pharmacy, earned by a two year course, is now scarcely recognized outside of the State of New York, where it will be substituted by a three year course beginning with the year 1927.

In the meantime, graduates of the University course only will be recognized as having met the 3 year requirement of certain states.

4. For the University Class, the College provides a thorough course of laboratory instruction in advanced Chemistry, Pharmacy and Physics and special courses in Microscopy and Bacteriology, consisting of both theoretical and laboratory instruction.

5. The University course extends throughout the academic year, with special instruction after the close of the College Course.

6. Not only is the degree of Pharmaceutical Chemist recognized as of higher rank than that of Graduate in Pharmacy, but the three-year course for which it is awarded qualifies its recipients for many lines of pharmaceutical work that are not open to graduates from the two-year College Course.

7. The degrees of Pharmaceutical Chemist and Bachelor of Science in Pharmacy are conferred by the University, that of Graduate in Pharmacy by the College.

It may be said in conclusion that the present tendency is strongly toward a higher educational grade than that represented by the Graduate degree, and the degree of Graduate in Pharmacy is ceasing to represent a satisfactory professional preparation.

Through a faculty consisting of twenty-nine active professors and instructors, students in all classes derive the benefit not only of the most advanced methods, but of instruction in small groups or class sections, thus allowing the largest amount of individual attention.

IMPORTANT ANNOUNCEMENTS

1. Beginning with the first of January, 1927, no student may matriculate in a pharmacy school in the State of New York, for a course of less than three years, leading to the degree of Graduate in Pharmacy.

2. It has been decided that no practical experience in drugstore or pharmacy will be required previous to such matriculation, although the requirements of the Board of Pharmacy as to such practical experience previous to the Board examinations, will continue unchanged.

3. In the interim, before the graduation of students from the three-year course, in 1930, our three-year University Course leading to the degree of Pharmaceutical Chemist will continue to exceed the conditions of the required three-year course for the Ph.G. degree.

4. Students matriculating for the Ph.C. course no longer receive their Ph.G. degree at the end of the second year, since the higher degree of Ph.C. is assumed to cover all the credits, rights and privileges of the lower course. Transfers from one course to the other cannot be made after the beginning of the work, except by special arrangement in each case.

5. The following important changes have been made in the subject matter of the University Course.

A. The work in Bacteriology has been increased from 45 to 90 hours, a part of the work in the histology of drugs having been transferred to the fourth year, to render this change possible.

B. A course of 90 hours in cryptogamic botany has been included in the course of the third year, in place of the course in vegetable taxonomy, which has been transferred to the fourth year.

6. With the inauguration of the three-year College Course, as above announced, the restricted accommodations for University students will probably necessitate a great reduction in the size of that class. Under these conditions, it is probable that more exacting requirements for admission will be established, and that the work of the course will be considerably extended.

7. With the coming session, although there can be no increase in student-attendance, four new instructors will be added to the Faculty, the special object being to provide for more individual attention during laboratory hours.

8. No student will be admitted more than two weeks after the date of opening of the session.

9. Beginning with the summer of 1926, no summer quiz courses will be given in any department, unless at least five students shall apply for membership in such class.

10. All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. The proper blanks will be furnished on application to the Registrar of the college.

11. All matriculants for this session must pay at least one-third of the tuition fee for the year, on or before the 8th day of September, 1926, failing which their

places will be filled by others, and no part of this sum will be refunded subsequently in case of the discontinuance of their course.

12. Any student who has failed in a laboratory course must make up this deficiency during the summer session, and cannot be allowed laboratory space during the regular session of 1926-1927, except on payment of the full tuition fee for the year. To this rule there may be certain exceptions, in case the laboratory work cannot be done during the summer.

13. Students intending to compete for the Plaut Fellowship should carefully read the conditions stated on page 28 of this *Announcement*, and take early steps to qualify for such competition.

14. According to the present valuation of high school work by the New York State Education Department, that of each year is rated as 18 counts, instead of 15 as formerly. The equivalent of high school graduation, when secured otherwise than by such graduation, is therefore understood as being 72 Regents counts.

15. It is to be noted that Regent's examinations for the Pharmacy student qualifying certificate will be discontinued after the year 1927 (See page 19).

16. A new college journal, *The Messenger* has been established, and appears regularly as a monthly publication.

ENTRANCE REQUIREMENTS

COLLEGE COURSE

This is a course of two years (three years, beginning in 1927) each of thirty-two weeks, leading to the degree of Graduate in Pharmacy, conferred by the College, and qualifying the graduate to meet examinations for the position of Licensed Pharmacist in New York State and in several other States.

The admission of students to this course is conditional upon the limitations of available space. For several years past, the College has not been able to accommodate nearly all who have applied for admission. Although an increase of fifty per cent in our accommodations has been made, we still find ourselves compelled to turn away applicants. For the session of 1926-1927, we shall have accommodations for only 300 new candidates for the degree of Ph.G. All properly qualified applicants will be admitted in the order of their application, until only fifty vacancies remain. Thereafter, we shall select only the best qualified of those applying, to fill such vacancies.

For admission to this course, the student must be at least seventeen years of age, and must present a Qualifying Certificate for a Pharmacy Student, issued to him by the N. Y. State Education Department. This certificate, or the statement of the State Education Department that the student is entitled to it, must be filed on or before November 15. Those who have successfully pursued four years' study at a high school or other school of corresponding grade, recognized by the State Education Department, can secure the certificate by sending their credentials to the Examination Division, Education Department, Albany, N. Y., on a form provided for that purpose, together with a fee of one dollar. Those unable to present such credentials are required to pass examinations held by the Department ("Regents' Examinations") in any of the subjects

named in the following table which may be selected by the candidate, or in any other subjects in which examinations are given, the subjects so selected to give a total credit of at least seventy-two counts, as there indicated. These examinations are held in January, June and September, in Albany, New York, Buffalo, and Syracuse. All subjects taken in Regents' examinations to count toward the certificate must be passed at not less than 75 per cent.

Students entering on credentials from foreign countries where the language is other than English must pass an examination in English for foreigners *before being matriculated*.

It is important to note that these professional academic Regents examinations will be discontinued on January 1st, 1928. After that date it will be possible to earn credit toward a Pharmacy students certificate only by attendance at an approved day or evening high school.

Students who have attended private institutions should not fail to ascertain whether such institutions are approved by the Education Department. If not, their credentials will not be accepted, and they will be required to take the regular examinations of the Department. For information as to these examinations, the necessary fees, etc., consult the State Education Department, Albany, N. Y.

SUBJECTS OFFERED BY THE DEPARTMENT OF EDUCATION

Ancient and Modern Languages

12 Three-year English	10 Second-year German
4 Fourth-year English	10 Second-year French
10 Second-year Latin	10 Second-year Spanish
10 Second-year Greek	10 Second-year Italian

Mathematics

5 Elementary algebra	2 Inter. algebra
3 Advanced algebra	2 Solid geometry
5 Plane geometry	2 Plane trigonometry

Science

5 Physics	5 Biology
5 Chemistry	5 Physical geography

History and Social Science

5 Modern history I	2½ Economics
5 Modern history II	2½ Civics
5 American history	

Commercial Subjects

5 Bookkeeping I	5 Commercial arithmetic
5 Bookkeeping II	10 Shorthand

Drawing

2 Elementary representation	2 Elem. mechanical drawing
2 Intermediate drawing	

THE UNIVERSITY COURSES

These are courses of full academic years (September to June) leading to graduation with the other departments of the University, and to the degree of Pharmaceutical Chemist, conferred by the University, at the end of the third year, and to that of Bachelor of Science in Pharmacy at the end of the fourth.

Pharmaceutical Chemist Course

For admission to this course, a student must be seventeen years of age, must have graduated from a high school within or outside of the State of New York that is accredited by the Education Department of this State, and must present a pharmacy student qualifying certificate from the Education Department of this State, based on 72 academic counts, equal to 15 Columbia units.

PRESCRIBED SUBJECTS

ENGLISH	{ 1 (grammar and composition)	1½ units
	{ 2 (literature)	1½ units
MATHEMATICS	{ <i>ai</i> (algebra to quadratics)	1 unit
	{ <i>c</i> (plane geometry)	1 unit
one unit from the following:		
	Physics	1 unit
	Chemistry	1 unit
	Biology	1 unit
	Mathematics <i>aii</i> (algebra through quadratics and beyond)	1 unit
ELECTIVE SUBJECTS		9 units
Elementary French		2 units
Elementary German		2 units
Elementary Greek		2 units
Elementary History		1, 2, 3 or 4 units
Elementary Italian		2 units
Elementary Latin		2, 3, or 4 units
Physics		1 unit
Elementary Spanish		2 units
Intermediate French		1 unit
Intermediate German		1 unit
Intermediate Spanish		1 unit
Intermediate Italian		1 unit
Advanced French		1 unit
Advanced German		1 unit
Advanced Spanish		1 unit
Advanced Greek		1 unit
Advanced Arithmetic		1 unit
Advanced Latin		1 unit
Advanced Mathematics		½, 1 or 1½ units
Biology		1 unit
Botany		1 unit
Chemistry		1 unit
Drawing		1 unit
Harmony		1 unit

Musical Appreciation	1 unit
Physiography	1 unit
Shopwork	1 unit
Zoology	1 unit
Second Year Hebrew	2 units
Elementary Bookkeeping	1 unit
Advanced Bookkeeping	1 unit

Bachelor of Science in Pharmacy Course

The requirements for admission to this course differ from those of the Pharmaceutical Chemist Course in the following particulars:

Course *iii*, quadratics and beyond, is prescribed, in addition to those above stated.

The candidate must be a graduate of an accredited high school of the State of New York, where the subjects outlined have been covered. Those not so qualifying must secure fifteen units at the entrance examinations conducted by Columbia University or the College Entrance Board. Graduates of high schools outside of the State of New York, may substitute for that examination, the June psychological tests of Columbia University, for the conditions of which the Director of Admissions of the University should be consulted.

Members of this class who are competing for the Plaut Fellowship must, before graduating, secure credit for one year of College work in a foreign language.

METHOD OF INSTRUCTION

The instruction of each class during the first and second year College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.

In several departments each student receives daily, before the beginning of the work, a mimeographed copy of the exercises.

GRADUATE IN PHARMACY—COLLEGE COURSE

This course, of two years, is designed to fit the graduate for meeting the requirements of the Board of Pharmacy of the State of New York, this being one of the few boards in the United States that will continue, until the year 1929, to examine candidates who have completed a course of two years.

First Year

		Class Hours	Laboratory Hours	Point
MM 15-16-17-18	Botany	2½	3	9
MM 13-14	Physiology and Hygiene	2	0	4
MM 19-20	Posology	½	0	2½
Chm. 1-2	General Physics	2	0	4
Chm. 3-4	Inorganic Chemistry	3½	0	7
Chm. 5-6	Analytical Chemistry	½	3	3½
Phr. 7-8	Theory of Pharmacy	4	0	8
Phr. 9-10	Practical Pharmacy	0	2	2
Phr. 11-12	Dispensing Pharmacy	0	1	1

Second Year

		Class Hours	Laboratory Hours	Points
MM 59	Materia Medica	3	0	6
MM 60	Toxicology	1	0	2
MM 61-62	Pharmacognosy	0	3	3
Chm. 51-52	Organic Chemistry <i>Phar ch</i>	4	0	8½
Chm. 53-54	Analytical Chemistry	0	3	3
Phr. 55-56	Practical Pharmacy	3	2	8
Phr. 57-58	Dispensing Pharmacy	1	1	3
Phr. 63-64	Commercial Pharmacy and Phar- maceutical Jurisprudence	1½	1½	4½

PHARMACEUTICAL CHEMIST—UNIVERSITY COURSE

This course, of three years, conforms to all the requirements of the American Conference of Pharmaceutical Faculties, as to conditions of admission and graduation, but comprises more hours of instruction, and includes additional subject matter, than pertain to that course. Under the statutes of New York, it is, until 1927, the only three year pharmacy course that can be given, and the degree of Pharmaceutical Chemist is the only one that can be awarded for it. In the meantime, the course is more comprehensive than that for the degree of Ph.G. and the degree is of higher rank.

First Year

		Class Hours	Laboratory Hours	Point
MM 15-16-17-18	Botany	2½	3	9
MM 13-14	Physiology and Hygiene	2	0	4
MM 19-20	Posology	½	0	1
Chm. 1-2	General Physics	2	0	4
Chm. 101	Physics Laboratory	0	2	2
Chm. 3a-4a	Inorganic Chemistry	3½	0	7
Chm. 5-6	Analytical Chemistry	½	3	3½
Phr. 7-8	Theory of Pharmacy	4	0	8
Phr. 9-10	Practical Pharmacy	0	2	2
Phr. 11-12	Dispensing Pharmacy	0	1	1

Second Year

		Class Hours	Laboratory Hours	Points
MM 59	Materia Medica	3	0	6
MM 60	Toxicology	1	0	2
MM 61-62	Pharmacognosy	0	3	3
Chm. 65-66	Inorganic Chemistry	4	0	8
~~Chm. 51-52~~	~~Organic Chemistry~~	~~4~~	~~0~~	~~8~~
Chm. 53-54	Analytical Chemistry	0	3	3
Phr. 55-56	Practical Pharmacy	3	2	8
Phr. 57-58	Dispensing Pharmacy	1	1	3 ✓
Phr. 63-64	Commercial Pharmacy and Phar- maceutical Jurisprudence	1½	1½	4½
Phr. 102	Advanced Pharmacy	1	1	3

Third Year

		Class Hours	Laboratory Hours	Points
MM 117-118	Bacteriology	1	1½	3½
MM 205-206	Morphology and Taxonomy of Crypto- gams	1	2½	4½
Chm. 103-104	Industrial Chemistry	2	0	4
Chm. 105-106	Chemical Bibliography	1	0	2
Chm. 107-108	Analytical Chemistry	1	10	12
Phr. 109-110	Higher Pharmacy	3	5	11
Phr. 111-112	Dispensing Pharmacy	0	2	2

Fourth Year

		Class Hours	Laboratory Hours	Points
MM 113-114	Applied Pharmacognosy	¾	5½	7
MM 115-116	Botanical Taxonomy	0	1½	1½
MM 155-156	Human Physiology	1	0	2
Chm. 157-158	Quantitative Analysis	1	8	10
Chm. 159-160	Food Analysis and Toxicology	1	8	10
Phr. 163-164	Higher Pharmacy	1½	7	10
Chm. 161-162	Biological Chemistry	1	0	2

FEES

MATRICULATION AND REGISTRATION FEES

For the session beginning September 1926 the Board of Trustees has adopted the following schedule of fees for students in attendance.

The Matriculation Fee (\$5.00) must be paid by each student at the time of his first registration. The matriculation fee is payable but once.

The Registration Fee (\$5.00) is payable at the time of all subsequent registrations for any year or in any of the prescribed courses.

The fee for students activities, first, second and third years is \$10.00

TUITION FEES

College Course

The tuition fee for each year of the College Course is.....\$200.00

University Course

The tuition fee for each of the first and second years of the University Course is.....\$200.00

For the extra first year Physics Laboratory and second year Pharmacy Laboratory instruction.....\$15.00

The tuition fee for the third year of the University Course is.....\$250.00

The tuition fee for the fourth year of the University Course is.....\$275.00

First-year students who fail to pass the examinations at the end of the course or at the supplementary examinations in the fall if they desire to repeat the first year's work must pay a registration fee of \$5.00 and a second tuition fee.

LABORATORY BREAKAGE FEE

At the beginning of each term each student is required to deposit the sum of \$10, to cover the cost of apparatus broken by him during that term. At the close of the term such portion of this fee as has not been consumed by such breakage will be returned to him.

SUMMER LABORATORY AND QUIZ COURSES

The fee for each full time subject of the Summer Quiz Course is.....\$15.00

For each Summer Laboratory Course.....\$25.00

The fee for a special lecture course in any single department of the regular College Course is.....\$35.00

The fee for a special laboratory course in any single department of the regular College Course is.....\$50.00

Evening Course fees, see page 41.

EXAMINATION FEES

On or before April 4, 1927, all students in the first and second year classes must pay an examination fee of \$10.

Candidates for the degree of Pharmaceutical Chemist must pay on or before April 25, 1927, an examination fee of \$10.

Candidates for the degree of B.S. in Pharmacy must pay, on or before April 25 1927, an examination fee of \$15.

PAYMENT OF FEES

A printed schedule of fees with the dates when due may be obtained in the Registrars' Office.

The matriculation or registration fee must be paid at the time of registration.

The session fee may be paid as indicated below, the student electing which plan he will accept.

All students registered in the first year class must, in order to complete their matriculation, make the first payment of their fees on or before September 8, 1926, instead of September 13, as noted below. Fees are *not* returnable under any circumstances.

A. Pay in full on or before September 13, 1926.

B. Pay one-half of the fee on or before September 13, 1926, and half on or before January 4, 1927; in this case, \$3 will be added to the first payment.

C. Pay a third of the fee on or before September 13, 1926, a third on or before December 1, 1926, and a third on or before February 14, 1927; in this case \$5 will be added to the first payment.

A student accepting plan B or C will, on failure to meet a payment, be liable to be debarred, from that date, from attendance.

The fees for the Summer Preparatory and Evening Courses are payable in advance.

All students, both regular and special, must pay their fees at the office of the College.

It is estimated that an expenditure of \$50 will cover the cost of the text-books and necessary apparatus required for the full two-year course.

REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the Bulletin Boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

AUTHORITY OF THE DEAN

The Dean is the executive officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

REQUIREMENTS FOR ALL REGULAR STUDENTS

Attendance

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third and fourth year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during ninety per cent of the hours of instruction in each year, and during eighty per cent of those of each exercise. For being late twice at daily opening the student will be charged with one absence. For failure to comply with this condition, the student will forfeit the privilege of presenting himself for examination.

Advancement in Classes

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the

passing mark being 75 per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations—but *not those* who have failed, without excuse, to present themselves thereat—will be allowed to undergo a single supplementary examination to be held as announced on page 72, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course, provided however, that such students may be refused re-matriculation if, in the judgment of the faculty, they are not qualified to be students of this College. A student who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer except in special cases.

As an aid to those students who are required to take a supplementary examination, summer quiz courses are held as per schedule on page 41. By a regulation of the State Education Department, students failing in more than one subject must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 1, 1926.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examination on paying an additional fee of \$10 and complying with all other requirements.

Such students may, if they prefer, be re-examined at any supplementary examination in September on payment of a fee of \$5.00 for each and every subject in which examined.

The fees for a third spring examination shall correspond with those stated above for the second examination.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again.

All students must obtain a rating of 75 per cent or higher in every department in which they may be examined. Therefore, a student may get the required num-

ber of total marks, yet fail of graduation because in one department he falls below the percentage required. Any student failing in one or more departments, but not in laboratory courses, may present himself for re-examination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without re-examination in the other departments. Should he so elect, he may be re-examined in all departments, in order to increase his general average. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 41.

PRIZES AND SCHOLARSHIPS

The College reserves the right to withhold the award of any scholarship or prize, if, in its opinion, no candidate has exhibited qualifications justifying the award.

THE HONOR ROLL

The twenty candidates securing the highest averages at the final examinations, constitute the Honor Roll, provided, however, that such candidates shall have attained a general average of not less than 90%. The diplomas of such students will bear a special gold seal of the College, bearing the inscription "With Honor."

TRUSTEES PRIZES

The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100 each, for competition at a special examination, by members of the graduating class who have obtained a position on the roll of honor at the regular examination for graduation. The prizes are awarded respectively for the best practical examinations in Chemistry, Pharmacy and Materia Medica. A certificate, stating the honor for which the prize was awarded, will also be given to each of the recipients of these prizes.

THE ALUMNI ASSOCIATION PRIZES

The Alumni Association of the College of Pharmacy offers three prizes to be presented at Commencement to the three students having the highest standing at graduation in the branches taught during the second year of the College course. A gold medal will be given for the best general examination, a silver medal for the second best examination, and a bronze medal for the third best examination.

Three prizes are awarded by the Alumni Association on "Alumni Day" to those members of the first-year College and University Classes who stand highest in laboratory work and who pass the best examinations in all branches of the first College year. The first prize is a Torsion balance, the second prize a copy of Arny, "*Principles of Pharmacy*," and the third prize a copy of Sadtler and Coblentz, "*Pharmaceutical Chemistry*."

THE MAX J. BREITENBACH PRIZE

A cash prize of \$200, accompanied by a certificate, is presented annually for the highest proficiency in the Junior (third year) University Class. This prize

is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach for many years a devoted trustee.

THE KAPPA PSI PRIZE

The Gamma Chapter of the Kappa Psi Fraternity presents annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

THE LILLIAN LEITERMAN PRIZE

Miss Lillian Leiterman, of the Class of 1911, offers a gold medal to that member of the College class who has maintained the highest standing among the women students throughout the entire College course.

THE J. LEON LASCOFF PRIZES

Trustee J. Leon Lascoff offers annually to the fourth and fifth students on the honor roll of the graduating class a year's membership in the American Pharmaceutical Association and to the sixth and seventh students on the honor roll a year's membership in any State Pharmaceutical Association.

TRUSTEES SCHOLARSHIPS

Two scholarships, entitling the winners to free tuition during the second year, are granted by the College for each session. These scholarships are awarded to the two members of the first-year College class who secure the highest averages at the regular spring examinations.

THE GEORGE J. SEABURY SCHOLARSHIP

This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, Mr. George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the Senior (fourth) year of the University course, of that member of this class who has maintained the highest standing during the three years, provided, however, that such student is eligible for the degree of B.S. in Phar., and shall not receive both this scholarship and the Max J. Breitenbach prize.

THE ISAAC PLAUT FELLOWSHIP

This Fellowship for the encouragement of graduate study and original research was founded by Mr. Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this Fellowship must have secured the degree of B.S. in Pharmacy at this school, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this College who shall have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

The Fellow shall be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He shall attend a foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and shall pursue a course of study approved by the Faculty. At the close of his incumbency he shall present to the Faculty a written report of his work.

The Fellowship payment shall be made in three equal instalments, one on June 15, one on November 1, and one on March 1, provided that the Fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he shall forfeit all further privileges and emoluments conferred upon him by his appointment to the Fellowship, and the Trustees of the College of Pharmacy may declare the Fellowship vacant.

N.B.—Competition for the Kappa Psi Prize, the Seabury Scholarship and the Plaut Fellowship is open only to those students who take their entire course at this College.

THE E. R. SQUIBB PRIZE

This is an annual cash prize of \$100., founded by Messrs. E. R. Squibb & Sons, in memory of Dr. E. R. Squibb. It is awarded to that graduate in Pharmacy who exhibits the greatest proficiency in Analytical Chemistry during his second year, as determined by the laboratory records.

THE LOUIS DOHME PRIZE

This is an annual cash prize of \$100., founded by Messrs. Sharp & Dohme, in memory of Mr. Louis Dohme. It is awarded to that graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopœia and National Formulary, as determined by the laboratory records and final examinations.

THE JOSEPH WEINSTEIN PRIZE

This prize consists of a compound microscope and is established by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that graduate in Pharmacy who has exhibited the greatest proficiency in Analytical Chemistry during the two years, as determined by the laboratory records and the final examination, and who has not secured any other prize.

THE ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE

This Association offers annually a gold medal to the member of the graduating class who has obtained the highest general average in practical laboratory work during the second year.

THE LEHN AND FINK PRIZE

This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the graduate attaining the highest standing at the examinations in Pharmacy.

THE WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE

This Association offers annually a gold medal to that member of the graduating class who has attained the highest general average in practical laboratory work, during both years, in the Department of Pharmacy.

THE GERMAN APOTHECARY'S ASSOCIATION PRIZE

In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited the greatest proficiency in the compounding of prescriptions in the senior year.

THE OLSHANSKY MEMORIAL MEDAL

This is a gold medal, founded by the students of this school in attendance upon the session of 1923-1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in his class in the subject of Dispensing Pharmacy.

OUTLINE OF COURSES

CHEMISTRY

Chemistry 1-2—General Physics. Lectures and recitations, 2 hours, 4 points. Professor SCHAEFER and instructors.

This course of lectures extends throughout the entire term and embraces the general and special properties of matter, mechanics, acoustics, heat, light, magnetism, and electricity. The course serves as a foundation and systematic introduction to the study of the chemical elements and their compounds, and to the subjects of chemistry and pharmacy. Special attention is devoted to such subdivisions as have a more direct bearing upon medicine.

In the University Course of 1926-1927 the lectures and recitations will not include the more advanced consideration of light, electricity and the structure of the atom. These will be deferred until the sophomore year.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of physical apparatus of the latest construction.

Text-books: Sadtler and Coblentz, *Pharmaceutical Chemistry*, fifth edition; Stewart, *College Physics*.

Chemistry 101—Practical Physics. Laboratory course, $3\frac{1}{2}$ hours, 2 points. Professor SCHAEFER and instructor. *during one ses*

This work is taken by students of the freshman year, University class, who are assigned to sections. In order to keep these sections as small as possible, four such groups have been provided for. The course consists of thirteen half-day periods scheduled as follows:

Group

- P. 1 9-12:30 Mondays, Sept. 27, 1926 to Jan. 3, 1927, inc.
P. 2 9-12:30 Mondays, Jan. 10, 1927 to April 4, 1927, inc.
P. 3 9-12:30 Wednesdays, Jan. 12, 1927 to April 6, 1927, inc.

This work consists of experiments in fundamental physical measurements followed by special work in heat, light, sound and electricity. The final exercises of the course will be specialized to suit the future need of each individual student, whether as pharmacist, physician or food chemist. The laboratory is equipped not only with apparatus for routine exercised, but has the appliances necessary for work in colorimetry, spectroscopy, refraction, calorimetry and electro-chemistry. *During half yr*

Chemistry 3-4—General Inorganic Chemistry. (For First Year College Students). Lectures and recitations, $3\frac{1}{2}$ hours, 7 points. Professors ARNY and SCHAEFER and instructors.

This course begins with a consideration of fundamental principles, and an outline of chemical theory, embracing the subjects of atoms, molecules, nomenclature, notation, etc., and continues with explanations of the laws of chemical combination, and rules governing the formation and nomenclature of acids, bases, and salts. Exercises in writing and calculating chemical equations are given, followed by problems in pharmaceutical chemistry. The non-metallic elements are afterward taken up, with their various compounds, including the inorganic acids. The metals are then taken up in detail, with the various salts which are of importance in chemistry and pharmacy, together with the pharmaceutical preparations into which they enter. In this connection the various pharmacopœial tests of identity and the subject of impurities and their detection receive special attention. All typical methods for the preparation of inorganic and organic salts are explained. Practical exercises in chemical equations are given and the student is drilled in the calculations necessary in the preparation of pharmaceutical chemicals. This portion of the course is treated from the standpoint of the pharmaceutical chemist, and involves a consideration of all the official and important pharmaceutical chemical preparation and compounds derived therefrom.

Text-book: Sadtler and Coblentz, *Pharmaceutical Chemistry*, fifth edition; U. S. *Pharmacopœia*.

Chemistry 3a-4a—General Inorganic Chemistry (for first year University students). Lectures and recitations $3\frac{1}{2}$ hours, 7 points. Professors ARNY, and SCHAEFER and instructors.

This course is placed upon the basis of university chemical training, careful attention being given to the newer theories concerning valence, chemical equilibrium and oxidation and reduction.

On the side of descriptive chemistry, the non-metals from hydrogen through nitrogen are discussed with particular reference to the isolation of these elements and the preparation of their compounds in modern chemical technology; industrial processes being illustrated by use of a projection lantern.

Text-book: Deming, *General Chemistry*, second edition.

Chemistry 5-6—Analytical Chemistry. Laboratory and recitations. $3\frac{1}{2}$ hours, $3\frac{1}{2}$ points. Professors HOSTMANN and MACADAMS and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized and separations and identifications of group members are performed. Finally, all facts acquired by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on samples of unlike composition.

Text-book: Hostmann and McAdams, *Laboratory Manual of Analytical Chemistry*.

Chemistry 51-52—Pharmaceutical and Organic Chemistry (for second year college students.) Lectures and recitations, 4 hours, 8 points. Professors ARNY and SCHAEFER and instructors.

In the lecture course, special care is taken to keep the student instructed in the new and constantly increasing applications of this science in the art of pharmacy and medicine. The preparation of the more common organic chemicals is fully treated, and the possibilities of advances under modern methods of research are presented to the student as they are reported. This department of modern pharmaceutical education is becoming more important each year, and no pains are spared to keep the instruction in Organic Chemistry fully up to the demands of the times.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up, explained in detail, and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Text-book: Sadtler and Coblentz, *Pharmaceutical Chemistry*, fifth edition; *U. S. Pharmacopœia*.

Chemistry 53-54—Analytical Chemistry. Laboratory course, 3 hours, 3 points. Professors HOSTMANN and MACADAMS and instructors.

The early part of the second-year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

Quantitative Analysis.—Instruction in quantitative analysis is then introduced. This training is intended to enable the pharmacist to determine the purity of medicinal chemicals and to find

the percentage strength of preparations. Volumetric analysis being simple, rapid and accurate for many medicinal substances, receives special consideration. As in the first year, all reactions are discussed and the changes involved in them are represented by equations. The quantitative significance of chemical changes is emphasized, derivation of equivalent quantities is discussed and the use of empirical solutions is practiced. Accurate weighing and measuring are insisted on. The student is obliged to perform careful and accurate determinations of the various components in samples furnished him, and after checking his results, to render an extensive report.

Drug Assaying.—The instruction in quantitative analysis is extended to the determination of the amounts of the active or principal constituents of drugs and galenicals. Since in the potent drugs and their preparations the quantities of the active constituents are very small, the sources of error in assaying them must be reduced to a minimum. The treatment that must be carried out for their isolation requires much care and skill in manipulation. It is for these reasons that this work, of necessity, falls in the last part of the course, when the student shall have been sufficiently trained to pursue the work intelligently and skillfully.

Text-books: Hostmann, *Volumetric Analysis*; Hostmann, *Qualitative Chemical Analysis*; U. S. Pharmacopœia.

Chemistry 65-66—Inorganic Chemistry (for University Sophomores). Lectures and recitations, 4 hours, 8 points. Professors ARNY and SCHAEFER and instructors.

This course is a continuation of chemistry—and will be devoted to a consideration of the non-metallic and metallic elements and their compounds. The course will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry will be discussed. In descriptive chemistry, the course will begin with phosphorus and its preparations and during the year the remaining non-metallic elements and all of the more important metallic elements will be discussed from the standpoint of modern industrial chemistry.

Text-book: Sadtler and Coblentz, *Pharmaceutical Chemistry*, fifth edition.

Chemistry 103-104—Industrial Chemistry. Lectures and recitations, 2 hours, 4 points. Professors ARNY and SCHAEFER.

This course, supplementing the lectures on inorganic and organic chemistry of the first and second year, considers such inorganic industries as acid, alkali, cement, fertilizer and glass manufacture and such industries based on organic chemistry as fermentation and alcoholic products, wood distillation, fats and soap making, petroleum, sugar and starch products.

Text-book: Thorp, *Industrial Chemistry*, third edition.

Chemistry 105-106—Chemical and General Bibliography. Lectures and conferences, 1 hour, 2 points. Professors ARNY and SCHAEFER.

This course will consist of lectures on the source books of chemistry, pharmacy, botany and cognate sciences and on the periodical literature on the same subjects. At the conferences, special themes will be assigned to each student for research during spare hours.

Chemistry 107-108—Analytical Chemistry and Urine Analysis. Laboratory, 10 hours, lectures 1 hour, 12 points. Professor HOSTMANN and instructors.

Lectures—34 hours. During part of the time there will be discussed the "general tests" of the Pharmacopœia, viz. "Determination of Ash and Non-Volatile Matter," "Iodine Absorption Value," "Saponification Value," "Acid Number of Resins," "Ether Soluble Matter," "Proximate Assays," "Melting Points," "Boiling Points," "Congealing Points," "Solubilities" and "Gasometric Estimations."

The greater part of the time will be devoted to the discussion of the practical application of the modern theories of physical chemistry to analytical processes and methods.

Laboratory Instruction—330 hours. The first period, comprising 100 hours, will be devoted principally to qualitative work. Students will be supplied with pure and adulterated chemicals. Tests of purity and identity will be performed upon the following: chloroform, ether, ethyl acetate, phenol, glycerol, alcohol, amyl alcohol, cresol, creosote, acetanilid, chloral, paraldehyde, formaldehyde, acetphenetidin, salicylic acid, acetosalicylic acid and such others as time will permit.

During the second period of 100 hours, gravimetric and volumetric methods will be studied.

The student will prepare normal acid and alkali solutions. The former will be standardized with barium chloride and silver nitrate, the latter with potassium bitartrate, etc. The finished solutions will then be run against each other. Following upon this, the student will prepare iodine, potassium permanganate, sodium thiosulphate, etc., volumetric solutions. After standardizing same, he will use them in volumetric assays not covered during the second year. The gasometric assays of ethyl nitrite and amyl nitrite as well as the assay of volatile oils will then be taken up and will extend into the third period of 100 hours which will be principally devoted to the proximate assays of the U.S.P. and of galenicals.

The final period of 30 hours will be devoted to the analysis of urine. In addition to the routine qualitative and quantitative tests, the student will receive instruction in the principles and use of colorimeters and polarimeters.

Text-books: Hawk, *Physiological Chemistry*; U. S. Pharmacopœia; Stieglitz, *Qualitative Chemical Analysis*.

Chemistry 157-158—Inorganic Quantitative Analysis. Lectures 1 hour, laboratory, 8 hours, 10 points. Professor HOSTMANN and instructors.

The aim of the fourth-year work in Analytical Chemistry is to carry forward the instruction in chemical analysis to such a point that the student may be able to execute the more important sanitary, chemical, and pharmaceutical analyses.

The object of analytical chemistry is twofold, viz.: qualitative and quantitative. During the first year the detection of the component elements of compounds of unknown composition are studied, while the work of the second and third years applies to determination of the relative proportional amounts of the components of the various compounds studied, chiefly by the aid of volumetric methods, leaving the more difficult and complex processes of gravimetric analysis to be taken up in the fourth year.

The student must possess the theoretical knowledge necessary to enable him to solve chemical equations, and to calculate the composition of substances from their formulæ and *vice versa*.

The work will consist chiefly of gravimetric determinations, but will perforce include the testing, adjusting and calibrating of delicate balances and other apparatus.

Text-books: Treadwell and Hall, *Quantitative Analysis*, sixth edition. Reference-book, Fresenius, *Quantitative Analysis*.

Chemistry 159-160—Food Analysis and Toxicology. Lectures 1 hour, laboratory 8 hours, 10 points. Professors ARNY and SCHAEFER and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course of thirty hours extending through the entire year, describing the various chemical methods of food examination and explaining the principles underlying the more complex physical instruments employed by the students in their laboratory course.

Text-books: Leach, *Food Analysis*; Autenrieth-Warren, *Detection of Poisons*; Mason, *Examination of Water*.

Reference-Book: Allen, *Commercial Analysis*.

Chemistry 161-162—Biological Chemistry. Lectures 1 hour, 2 points. Mr. KARSHAN.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

MATERIA MEDICA

Materia Medica 13-14—Human Physiology and Hygiene. Lectures and recitations, 2 hours each, 4 points. Professors RUSBY, HART, and TAUB and instructors.

In addition to the skill in Pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in Human Physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies, in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of Physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of Materia Medica as is properly required of the practising pharmacist.

Text-book: Bachman and Bliss, *Essentials of Physiology*; Howell, *Physiology*.

Materia Medica 15-16—Botany. Lectures and recitations. 2 hours, 4 points. Laboratory, 1½ hours, 1½ points. Professors RUSBY, HART and TAUB and instructors.

The object of this course is to prepare the student for an understanding of that part of Materia Medica which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction embraces the morphology of the higher plants, from which nearly all of our vegetable drugs are derived, the terms used in official description, systems of classification, botanical nomenclature, and the relations of the lower to the higher plants.

The lectures are illustrated by large colored charts, and each student is furnished with cards bearing mounted specimens.

For the use of the instructor in the Quiz Room, the Alumni Association has provided an elaborate series of papier-mache models arranged to illustrate structure and dissection.

Text-book: Rusby, *Manual of Botany*.

Materia Medica 17-18—Botany Laboratory. Lectures ½ hour. Laboratory, 3 hours, 4 points. Professors BALLARD, HART and TAUB and instructors.

Gross Botany.—Pharmacognosy, while itself not a science, may be regarded as the art of applying scientific knowledge to the examination of drugs. The theoretical and practical training of the lecture and recitation room is designed to fit the student for such botanical observations as can ordinarily be made with the naked eye.

To enable him to extend these observations by the use of the simple or dissecting and the compound microscope, in preparation for the study of Pharmacognosy in the following year, a course of laboratory instruction is provided. This portion of the work is under the direction of Professor Hart, and consists in thoroughly training the students in the use of the simple microscope, and in teaching the structure of all parts of the plant which can be studied with that instrument.

The material for these studies is collected during the summer season, and carefully selected with a view to best illustrating the points brought out in the lecture-room.

Vegetable Histology.—As ability to properly use a microscope is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts of the instrument. The uses of the various types of objectives, oculars, illuminating apparatus and mechanical accessories are explained and demonstrated. The details of sectioning, embedding, staining and mounting specimens are illustrated by demonstrations, and at least part of the work is performed by the student.

The course includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant. Each student prepares a set of specimens for use in the course and is required to follow the lecture explanations by personal observation and drawings illustrating the topics considered at each session.

Text-books: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.

Materia Medica 19-20—Posology. Recitations, $\frac{1}{2}$ hour, 1 point. Professor TAUB.

The practice in some states of issuing licenses as Assistants to those who have not completed their pharmacy course renders it necessary that the more important facts regarding dosage and danger of poisoning should be taught in the first year course. These recitations are designed to meet this requirement.

Materia Medica 59—Materia Medica. Lectures and recitations, 3 hours. 6 points. Professors RUSBY, HART and TAUB and instructors.

This course includes instruction in both the inorganic and organic divisions of drugs.

ORGANIC DIVISION.—In these lectures, the drugs are arranged in the order of their botanical relationship, there being a general correspondence between such relationship as, represented in the various families and subfamilies, and their medicinal properties. The natural order recognized in the classification of Engler and Prantl (*Pflanzen-familien*) is followed.

Some general remarks upon the families, with special reference to their medicinal constituents and properties, will always precede the consideration of the species belonging thereto. In studying the individual drugs, the order of topics is as follows: The definition given by the Pharmacopœia, habit, habitat, range, collection, preparation and commerce, important constituents, medicinal action, uses, and doses. All instruction pertaining to description, structure, identification, substitution and adulteration is referred to the extensive course in Pharmacognosy.

INORGANIC DIVISION.—Many of the inorganic drugs are so closely related in properties and uses to others in the organic division that their consideration in connection therewith is deemed of advantage to the student. Those members which form classes distinct from those of the organic division will be afterward considered, and their classification will correspond in a general way with that found in Wood, *Therapeutics*. All facts concerning the chemistry and pharmacy of these drugs will be omitted, except when necessary to explain changes of such a nature as to modify their medicinal effects.

Text-books: Culbreth, *Materia Medica and Pharmacology* (for University students, Gould, *Pocket Medical Dictionary*).

Materia Medica 60—Toxicology. Lectures and recitations. 1 hour, 2 points. Professors RUSBY, HART and TAUB and instructors.

The classification of poisons is based upon the Physiological Action of Medicines, taught during the Junior year, and is synoptically presented at the beginning of the course in Materia Medica. The Toxicology of the individual drugs is then taken up in detail in connection with their physiological action and medicinal uses. Experience has shown that by this method the modes of occurrence of poisoning accidents, the poisonous doses, the action of poisons and their rational treatment, are all made more intelligible to the student, and are better impressed upon his memory, than by treating the subject as entirely disconnected from that of Materia Medica.

Text-book: Brundage, *Manual of Toxicology*.

Materia Medica 61—Macroscopic Pharmacognosy. Laboratory, ³ $1\frac{1}{2}$ hours, $1\frac{1}{2}$ points. Professors BALLARD, HART and TAUB and instructors.

This course comprises laboratory instruction in the classification, identification and description

of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial sources; official description, definition and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs and many non-official articles of commercial or technical importance as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. Botany (Course MM. 15-16 or its equivalent) is prerequisite to a proper understanding of the work in this course.

Text-book: Squibbs, *Atlas of the Official Drugs*.

Materia Medica 62—Microscopic Pharmacognosy. Laboratory, $1\frac{1}{2}$ 3 hours, $1\frac{1}{2}$ points. Professors BALLARD, HART and TAUB and instructors.

The preliminary work of this course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (Course MM. 17-18) is coordinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements in situ and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

Text-books: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.

Materia Medica 113-114—Applied Pharmacognosy. Lecture $\frac{3}{4}$ hour. Laboratory $5\frac{1}{2}$ hours, 7 points. Professors BALLARD and HART.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials using these sections for the demonstration of staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work it is expected that the student will avail himself of the library facilities of the School and freely use the economic drug and food collections of the laboratory for reference and comparison purposes. The aim is to duplicate actual commercial laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, as far as possible, be commercial products which have been analyzed by microscopical methods.

Prerequisite—Botany 15-16-17-18; Pharmacognosy 61-62. References: E. R. Squibb Co., *Atlas of the Official Drugs*; Kraemer, *Scientific and Applied Pharmacognosy*; Winton, *Microscopy of Vegetable Foods*; Schneider, *Powdered Drugs*, National Standard Dispensatory.

Materia Medica 115-116—Botanical Taxonomy. Laboratory course $1\frac{1}{2}$ hours, $1\frac{1}{2}$ points. Professor RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of

their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Text-book: Rusby, *Manual of Botany*.

References: Bentham and Hooker, *General Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

Materia Medica 117-118—Bacteriology. Lectures 1 hour, 2 points, laboratory 2½ hours, 4½ points. Professors HART and TAUB and instructors.

The Bacteriological Laboratory in our new building has been fully equipped, and practical work in this important field is taken up. The general principles of the science are taught, and the students cultivate, stain, and study the more important microorganisms. Laboratory methods in the bacterial examination of water, air, milk, ice, sputum and excreta are given, and methods of disinfection and sterilization are practically demonstrated.

Park and Williams, *Pathogenic Micro-organisms*.

Materia Medica 155-156—Human Physiology. Text-book and Conferences 1 hour, 2 points. Miss HOPPING.

This course consists of a series of discussions, based on assigned reading, occupying 1 hour weekly throughout the term.

Text-book: Howell, *Physiology*.

MM. 205-206—Morphology and Taxonomy of Cryptogams. Lectures 2 points, laboratory 2½ points. Professors BALLARD and HART.

This course comprises lectures, recitations and laboratory exercises in the morphology, phylogeny and taxonomy of the Thallophyta, Bryophyta and Pteridophyta. One or more representatives of the different orders of each class and subclass will be studied in detail.

Prerequisite—Courses MM. 15, 17, 18 or equivalent courses in botany and vegetable histology.

Texts: Coulter, Barnes, Cowles, *Text-Book of Botany*, Vol. 1; Strassburger, *Text-Book of Botany*.

Materia Medica 207-208—Chemical Microscopy. Laboratory course, 2 hours, 2 points. Professor BALLARD.

PHARMACY

Pharmacy 7-8—Theory of Pharmacy (including Pharmaceutical Latin and Arithmetic). Lectures 3 hours, Recitation 1 hour. Professors DIEKMAN, WIMMER and BROWN and instructors. 8 points.

Theory of Pharmacy

The object of this course is to teach the student to put into practice in the laboratory the principles of pharmaceutical manipulation taught in the lecture room. While the student's work is individual, it is carefully supervised by professors and instructors, so that errors in conception and inaccuracies in method can be promptly corrected.

In the laboratory course the students reach a point where each is competent to prepare such pharmaceutical preparations as are in common use.

The course is designed to present, in as brief a manner as is consistent with thoroughness, those principles of Latin etymology and construction which are essential to an intelligent understanding and use of the terminology of Pharmacy.

As the time which can be devoted to this work in the present curriculum of schools of pharmacy is necessarily limited, only such parts of Latin grammar will be taken up as are required for the correct use of nomenclature of the materia medica, and prescription writing.

The nomenclature of the United States Pharmacopœia and the National Formulary will be especially considered, and if time permits, that of the principal foreign Pharmacopœias will be taken up. The subject of Latin abbreviations, as used by the physician in prescription writing, will be specially treated.

Text-books: *U. S. Pharmacopæia*; *National Formulary*, 4th edition; Sturmer, *Pharmaceutical Latin*; H. C. Muldoon, *Pharmaceutical Latin*; Sturmer, *Pharmaceutical Arithmetic*.

Pharmacy 9-10—Practical Pharmacy. Laboratory course, 2 hours, 2 points. Professors DIEKMAN, WIMMER and BROWN, and instructors.

Text-book: Diekman and Wimmer, *Pharmacy Laboratory Notes*.

Pharmacy 11-12—Dispensing Pharmacy. Laboratory course. 1 hour, 1 point. Professors DIEKMAN and WIMMER and BROWN, and instructors.

This course embraces the methods of compounding the various types of prescriptions, from the simplest to those requiring much technical knowledge and skill. It includes theoretical instruction and training in manual work. The habit of neatness, and, above all, of accuracy, acquired by the student is of direct and immediate advantage to him in rendering his services more valuable to his employer.

Text-book: Diekman and Wimmer, *Dispensing Laboratory Notes*.

Pharmacy 55-56—Practical Pharmacy. Lectures 2 hours, recitations, 1 hour, laboratory course, 2 hours, 8 points. Professors DIEKMAN, WIMMER and BROWN, and instructors.

The lectures of this course serve the double purpose of furnishing a theoretical basis for the work of the laboratory and of supplementing the instruction given in the dispensing laboratory. All classes of galenical preparations are taken up and their methods of preparation not only collectively, but individually, are thoroughly considered. The common impurities of each and methods for their detection, means of preservation and incompatibilities are also considered. Particular attention is paid to the latter part of this subject, not only as regards the galenical preparations, but also the various inorganic salts and newer remedies. The subject of Homœopathic Dispensing receives its due share of attention.

The laboratory work follows closely the plan of the lectures, the student ascertaining by appropriate tests the identity and purity of various compounds, and preparing many inorganic and organic pharmaceutical preparations and salts, such as the liquors, chemical syrups, inorganic salts, organic compounds, etc.

Ample facilities are provided for students engaged in studying pharmaceutical manufacturing on a large scale, and for those engaged in assaying and carrying on plant analysis, etc. A properly equipped balance room is on the laboratory floor for the use of students engaged in quantitative work.

Pharmacy 57-58—Dispensing Pharmacy. Recitations, 1 hour, laboratory course, 1 hour, 3 points. Professors DIEKMAN, WIMMER and BROWN and instructors.

The work of the *Dispensing Laboratory* deals more especially with prescription difficulties, and embraces the all-important subject of chemical, pharmaceutical and therapeutical incompatibilities—those which may, as well as those which frequently do occur. The continual introduction of new remedies renders the subject of prescription incompatibilities a never-ending study, and it is the aim of this department to qualify its graduates for keeping pace with discovery.

Text-books: Ruddiman, *Incompatibles in Prescriptions*; Diekman and Wimmer, *Pharmacy Notes*.

Pharmacy 63—Commercial Pharmacy. 2½ points. Lectures 1½ hours, Laboratories 1½ hours. Professor LASCOFF.

This course in Commercial Pharmacy is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug-store, including the choice of location, the elements of business administration and store management, insurance, problems of retail merchandising, including the value of discounts, banking,

principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will be devoted largely to the principles underlying the making and interpretation of these records.

The course develops the subject rapidly devoting its time and emphasis to the foundational problems of accounting. It is built up along the lines and methods of modern accounting practice. The subject matter includes: theories of debit and credit; classification of accounts; underlying principles of various accounting records; business papers and documents used as the basis for first entry; simple problems of the balance sheet and income statement; single entry; controlling accounts; handling sales and purchases; safeguarding the cash; consignments, and related topics. Ample practice for students is provided. The work will be related to the modern pharmacy.

A portion of the course will be devoted to general business and pharmaceutical law.

Pharmacy 64—Pharmaceutical Jurisprudence. 2 points. 1½ hours.
Lecturer NEUSTAEDTER.

This course is designed to familiarize the student with the general provisions of State and Federal Laws governing the practice of pharmacy. Ordinances and regulations having local application only will likewise be studied.

Special attention will be given to the prohibition and anti-narcotic laws and regulations.

A knowledge of these laws and regulations is essential to the proper and safe conduct of a drug-store or pharmacy.

Pharmacy 102—Advanced Pharmacy. Lectures and recitations, 1 hour.
Laboratory, 1 hour, 3 points. Professors DIEKMAN, WIMMER and BROWN.

Members of the university class will devote the entire time between the examinations of the college class and those of the university class to work in the pharmacy laboratory.

The theoretical part of the course is devoted to the study of the more advanced methods of dispensing and compounding, as well as to the study of methods and processes employed in the manufacture of pharmaceutical preparations.

The practical part embraces the compounding of prescriptions requiring advanced knowledge and skill, and the manufacture of official preparations, such as compressed tablets, plasters, salve mulls, pastes, pencils, sprays, inunctions and others.

Text-book: Scoville, *Art of Dispensing*.

Pharmacy 109-110—Higher Pharmacy. Lectures and recitations, 3 hours.
Laboratory work 5 hours, 11 points. Professors DIEKMAN and WIMMER and BROWN, and instructors.

The course in this department consists of a series of lectures, laboratory exercises and recitation. The scope of this work comprises the manufacture and study of a number of the more difficult Pharmacopoeial and National Formulary preparations, as well as of synthetic remedies. In the manufacture of the latter class of preparations, especial emphasis will be laid upon the proper assemblage, arrangement and use of apparatus.

The entire time assigned for work in the dispensing laboratory will be devoted to a comprehensive study of the subject of prescription incompatibilities. The large number of new remedies which are constantly being employed make the work in this field attractive and valuable.

Pharmacy 111-112—Dispensing Pharmacy. Laboratory work, 2 hours, 2 points. Professors WIMMER and BROWN.

Text-books: *U. S. Pharmacopoeia*, 9th edition; *National Standard Dispensatory*, latest edition; *National Formulary*, 4th edition.

Pharmacy 163-164—Higher Pharmacy. Lectures and recitations, 1½ hours. Laboratory work 7 hours, 10 points. Professors DIEKMAN, WIMMER and BROWN.

The work in this course consists of a series of lectures and practical laboratory exercises. The

manufacture and subsequent analysis of flavoring extracts, cosmetics, medicated gauzes, and other articles of like nature, will receive the attention which this important subject merits. Proximate vegetable analysis will also be studied and carried on.

The time assigned for work in the dispensing laboratory will be devoted to the compounding of difficult prescriptions. Pharmaceutical topics of current interest will be discussed in a series of weekly seminars.

Text-book: *U. S. Pharmacopœia*, 9th edition.

SUMMER LABORATORY AND QUIZ COURSES

These courses are designed to assist students who have failed at the spring examinations to prepare for those of the fall, and to provide instruction for special students in the use of the microscope, in the examination of drugs and in pharmaceutical processes.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

LABORATORY COURSES 1927

Fees: Twenty-five Dollars for each subject.

June 6 to June 25—Analytical Chemistry and Physics.

June 27 to July 18—Botany and Pharmacognosy.

July 20 to August 8—Pharmacy and Dispensing Pharmacy.

QUIZ COURSES 1926

Fees: Fifteen Dollars for each subject.

These courses will be held during the period from August 16 to September 4. No course will be given to a class numbering less than five students. First-year students will attend on Tuesday, Thursday and Saturday, and second-year students on Monday, Wednesday and Friday. The schedule of hours for each day will be as follows:

First Year

9 a. m.—10 a. m. Botany
10 a. m.—11 a. m. Physiology
11 a. m.— 1 p. m. Chemistry
2 p. m.— 4 p. m. Pharmacy
4 p. m.— 5 p. m. Physics

Second Year

9 a. m.—10 a. m. Materia Medica
10 a. m.—11 a. m. Toxicology
11 a. m.— 1 p. m. Pharmacy
2 p. m.— 4 p. m. Chemistry
4 p. m.— 5 p. m. Dispensing Pharmacy

EVENING COURSES

These courses of instruction, as reorganized, have been largely attended. Although they cannot be substituted for any of our regular work, leading to degrees, they have proven of great benefit to those who cannot attend instruction during the daytime and to those who desire to pursue special courses of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes. Certificates will be awarded to those who attend at least 80 per cent of all of the exercises of the

course for which they register and who, in addition, receive a satisfactory grade in a final examination. Students may be admitted at any time at the discretion of the instructor in charge. A registration fee of \$6.00 is required of each student. The courses are given on three evenings of each week from Monday, October 4, 1926, to Friday, April 30, 1926. Students may pursue more than one of the courses offered during the same semester. Fees are payable in advance and are not returnable. The following courses of instruction are offered:

Chemistry, Phr. 20-e—Pharmaceutical Qualitative Analysis. 1 hour classroom and 2 hours' laboratory each week. Fee, \$16 each session. Mr. MACSATA and assistant.

7:30-10:30 p. m., Friday.

Lecture, 7:30-8:20 p. m.

Laboratory, 8:30-10:30 p. m.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia. (Conditional on the enrollment of 10 students.)

Laboratory fee, \$5 per session.

Deposit for breakage, \$10.

Chemistry, Phr. 21-e—Pharmaceutical Qualitative Analysis. 1 hour classroom and 2 hours' laboratory work each week. Fee, \$16 each session. Mr. MACSATA and assistant.

7:00-10:00 p. m., Friday.

Laboratory, 7:00-9:00 p. m.

Lecture, 9:10-10:00 p. m.

This course is a continuation of 20-e with particular reference to the U. S. P. tests for acid-ions. (Conditional on the enrollment of 10 students.)

Laboratory fee, \$5 per session.

Fee for breakage, \$10.

Chemistry, Phr. 22-e—Pharmaceutical Volumetric Analysis. 1 hour classroom and 2 hours' laboratory work. Fee, \$16 each session. Mr. MACSATA and assistant.

7:00-10:30 p. m., Friday.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia. (Conditional on the enrollment of 10 students.)

Laboratory fee, \$5 per session.

Deposit for breakage, \$10.

Chemistry, Phr. 24-e—Examination of Urine. 1 hour lecture and 2 hours' laboratory work. Fee, \$16. Professors HOSTMANN and MCADAMS and assistant.

7:15-10:30 p. m., Friday.

Lecture, 7:20-8:20 p. m., Friday.

Laboratory, 8:30-10:30 p. m., Friday.

In this course the qualitative and quantitative chemical tests of normal and pathological urine

are studied; also the preparation and standardization of the necessary reagents. (Conditional upon the enrollment of twenty students.)

Laboratory fee, \$5.

Deposit for breakage, \$10.

Chemistry, Phr. 25-e—Examination of Urine. 1½ hour lecture and 2 hours' laboratory work. Fee, \$16. Professors HOSTMANN and McADAMS and assistant.

7:30–10:00 p. m., Friday.

Lecture, 7:30–8:00 p. m., Friday.

Laboratory, 8:20–10:00 p. m., Friday.

In this course, a continuation of 24-e, the gravimetric, polariscopic, colorimetric and microscopic examination of urine is studied. (Conditional upon the enrollment of twenty students.)

Laboratory fee, \$5.

Deposit for breakage, \$10.

Pharmacy, Phr. 10-e—Elementary Pharmacy. 1 hour lecture and 2 hours' laboratory work each week. Fee, \$16 each session. Special laboratory fee, \$5 each session. Professor BROWN and assistant.

7:30–10:30 p. m., Tuesday.

This course is of value to those employed in pharmaceutical laboratories. Pharmaceutical operations as well as dispensing practices are studied and carried out. (Conditional upon the enrollment of ten students.)

Pharmacy, Phr. 11-e—Advanced Pharmacy. 1 hour lecture and 2 hours' laboratory work each week. Fee, \$16 and special laboratory fee, \$8 each session. Professor BROWN and assistant.

7:30–10:30 p. m.

In the winter session instruction is given in the manufacture of the more difficult medicinal preparations, such as the compressed tablets, medicated gauzes, ampouls, etc. During the spring session methods of analysis for such preparations and galenicals in general are studied and carried out. (Conditional upon the enrollment of ten students.)

Pharmacy, Phr. 12-e—Manufacturing Pharmacy. 1½ hours lectures and 1½ hour laboratory work each week. Fee, \$20 and special laboratory fee, \$5 each session. Professor WIMMER and assistants.

7:30–10:30 p. m., Tuesday.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail. (Conditional upon the enrollment of ten students.)

Pharmacy, Phr. 14-e—Manufacture of Cosmetics and Toilet Preparations. 1½ hours' lectures and 1½ hours' laboratory work each week. Fee, \$24 and \$5 special laboratory fee each session. Professor WIMMER and assistants.

7:30–10:30 p. m., Tuesday. Main lecture room, Pharmacy.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face pow-

ders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured. (Conditional upon the enrollment of ten students.)

A summary of the lecture topics will be furnished upon request.

Pharmacy, Phr. 15-e—Perfume Materials and Perfumery. 1 hour lecture and 2 hours laboratory work each week. Fee, \$50 each semester. A special laboratory fee must be paid by students taking the second semester. Professor WIMMER and assistants.

Monday 7 p. m. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprise the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included. The second semester consists mainly of practical work.

A summary of the course will be mailed upon request.

Microscopy, Phr. 16-e—Microanalysis of Drug Products. 1½ hours' lecture and 2 hours' laboratory work each week. Fee, \$20 each semester. Laboratory fee, \$15 each session. Professor BALLARD and assistants.

Monday—Lectures, 7:00–8:20 p. m. Laboratory, 8:30–10:30 p. m.

This course provides instruction in the identification and examination of powdered drugs, and medicinal products amenable to microscopic examination. Satisfactory courses in botany, vegetable histology and pharmacognosy are necessary prerequisites. (Conditional on an enrollment of five students.)

Microscopy, Phr. 17-e—Microanalysis of Food Products. 1½ hours' lecture and 2 hours' laboratory work each week. Fee, \$20 each semester. Laboratory fee, \$15 each session. Professor BALLARD and assistants.

Monday—Lectures, 8:30–9:45 p. m. Laboratory, 7:00–8:30 p. m. and 9:45–10:30 p. m.

This course provides instruction in the microscopic examination of foods and food products. Satisfactory courses in botany and vegetable histology are necessary prerequisites. (Conditional on an enrollment of five students.)

Bacteriology, Phr. 18-e—Principles and Practice of 1 hour lecture and 2 hours laboratory work each week. Fee, \$24 each semester. Laboratory fee \$15 each semester. Professor HART and assistants.

Monday—Lectures 7:00–8:00 p. m. Room 42, Pharmacy.

Monday—Laboratory 8:00–10:00 p. m.

This course includes the bacterial examination of sputum, excreta, water, air, milk and ice.

Special attention is given to the methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology and staining properties of the more common pathogenic bacteria.

Blood Analysis 19-e—1 hour lecture and 2 hours Laboratory work each week, 1 semester. Fee \$24 and \$15 laboratory fee. Professor HART and assistants.

7:00–10:00 p. m., Tuesday.

Tuesday—Lecture 7:00–8:00 p. m.

Tuesday—Laboratory 8:00–10:00 p. m.,

The entire semester is devoted to the chemical analysis of blood, the preparation of blood smears and blood count.

Parasites, Phr. 20-e—of the blood and intestines. 1 hour lecture and 2 hours laboratory work each week, 1 semester. Fee \$24 and \$15 laboratory fee. Professor HART and assistants.

Tuesday—7:00-10:00 p. m.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

THE ALUMNI ASSOCIATION OF THE COLLEGE OF
PHARMACY OF THE CITY OF NEW YORK

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ENDOWMENTS

For ninety-seven consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and trustees. At various times, financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this *Announcement*, in addition to the regular course of two years, leading to the degree of Ph.G., the College now provides a regular course of three years, leading to the degree of Ph.Ch., with an additional year of optional work, leading to the degree of B.S. in Phar.

Plans for a graduate course of two years, leading to the degree of Doctor of Pharmacy, have been perfected by the Faculty, but cannot be carried out at the present time, for want of the necessary material resources. That the strain of such a charge upon those resources is very great, calling as it does for an increased teaching force, newly equipped rooms and additional apparatus, requires no explanatory statement.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the School.

Since the actual instruction work of the school calls for the expenditure of our entire income received from student's fees, it follows that we are compelled, like other schools, to seek other courses of income for meeting this unusual expense.

Under the stress of immediate necessity, we have recently completed and occupied an extension to our former building, costing approximately \$300,000. This work was undertaken in the belief that the necessary amount would be contributed by the alumni and friends of the College. Up to the present time, only about one-half of the amount has been subscribed, and we present a special appeal for contributions to this cause.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

LIBRARY MAINTENANCE

The library facilities required by men engaged in the advanced studies of their fifth and sixth years are necessarily much more extensive than those now provided by the College. The research work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the Library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.

APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to \$10,000 would admirably meet this demand.

MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or materia medica museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum proper comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three-fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the City and Federal Departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquirers could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an

encyclopedic knowledge of the subject, and qualified to pursue original researches. Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

ADDITIONAL PROFESSORSHIPS

The establishment of a number of lecture courses to be served by specialists in their respective subjects is an essential requisite in the work of the final years of an advanced course. Perhaps the most important of such subjects is the history of chemistry and pharmacy. The provision of even a short series of lectures would do much to point the way to investigation in the light of former achievement.

Those desiring to contribute toward any of the purposes named, or others in which they may be interested, will upon request be supplied with a form which may be used for the purpose.

REGISTER OF GRADUATES

PHARMACEUTICAL CHEMISTS, JUNE 4, 1924

Emelin, Arthur Charles Mamaroneck, N. Y.
 Herzog, Henry
 2250 Newbold Avenue, New York, N. Y.
 Kingsley, John Francis
 173 Lander Street, Newburgh, N. Y.
 Sloshever, Joseph
 355 East 10th Street, New York, N. Y.
 Sullivan, Nathaniel Francis
 1159 Castleton Ave., W. New Brighton, N. Y.
 Timmermann, Helen Augusta
 802 Lexington Avenue, New York, N. Y.
 Ziegler, Harold Arnold
 146 First Street, Long Island City, N. Y.
 (7)

BACHELOR OF SCIENCE IN PHARMACY, JUNE 3, 1925

Herzog, Henry
 2250 Newbold Avenue, New York, N. Y.

Jayne, Leslie Port Washington, N. Y.
 Maier, Augustus Andrew Middletown, N. Y.
 Sloshever, Joseph
 355 East 10th Street, New York City
 Timmermann, Helen Augusta
 892 Lexington Avenue, New York, N. Y.
 Ziegler, Harold Arnold
 146 First Avenue, Long Island City, N. Y.
 (6)

PHARMACEUTICAL CHEMISTS, JUNE 3, 1925

Braaf, Alexander Elias
 106 Ridge Street, New York, N. Y.
 Markowitz, Harry
 11 East 118 Street, New York, N. Y.
 Rosenthal, Albert
 3211 Railroad Ave., New York, N. Y.
 Teicher, Morris
 527 West 135 Street, New York, N. Y.
 (4)

GRADUATES IN PHARMACY, MAY 16, 1925

Adams, Joseph Edison
 63 Hopkins Avenue, Jersey City, N. J.
 Albert, Stanley
 26 Ridgewood Avenue, Waterbury, Conn.
 Alexander, Arthur
 34 West 116 Street, New York City
 Alfieri, Joseph D.
 264 So. Main Street, Waterbury, Conn.
 Altman, George
 513 Vermont Street, Brooklyn, N. Y.
 Amapani, Floriano
 1053 Carroll Place, New York City
 Amsterdam, Herman J.
 21 East 5 Street, Brighton Beach, N. Y.
 Antokoletz, Joseph
 1517 Nelson Avenue, New York City
 Appelbaum, Nathan
 1845 7th Avenue, New York City
 Appleman, Morris
 326 Neptune Avenue, Brighton Beach, N. Y.
 Arone, Columbus Frank Ardsley, N. Y.
 Bain, William Peer
 Second Avenue, Bay Shore, N. Y.
 Barasch, Charles
 1352 Lexington Avenue, New York City
 Baron, Nathan
 106 West 89th Street, New York City
 Barr, Joseph
 2002 Avenue J, Brooklyn, N. Y.
 Bell, Maier Baer
 645 Harrison Place, W. New York, N. J.

Benenfeld, Ephraim James
 693 Coney Island Ave., Brooklyn, N. Y.
 Bennett, John Wilson, Jr.
 33 No. Fifth Avenue, Long Branch, N. J.
 Berger, Benjamin
 1310 Morris Avenue, New York City
 Bergman, Jack
 522 Vermont Street, Brooklyn, N. Y.
 Berkowitz, Morris
 42 Essex Street, New York City
 Bernitz, David
 392 East 8 Street, New York City
 Bierfass, Morris Leo
 121 Columbia Street, New York City
 Bierman, Samuel
 636 Wales Avenue, New York City
 Birnbaum, Abraham
 62 East 113 Street, New York City
 Bloom, Hyman H.
 387a Atkins Avenue, Brooklyn, N. Y.
 Boccia, Raphael 37 Strong Street, Corona, N. Y.
 Bonaccolto, Gaetana
 322-2nd Avenue, New York City
 Braunstein, Hyman
 175 Norfolk Street, New York City
 Braunstein, Leo
 496 Bedford Avenue, Brooklyn, N. Y.
 Brawer, Solomon
 872 Dawson Street, New York City
 Breger, Samuel
 606 Third Avenue, New York City

- Brode, Harry
 887 Longwood Avenue, New York City
 Brody, Bertha
 612 East 4 Street, Brooklyn, N. Y.
 Bronstein, Abraham Mayer
 9210 Jamaica Avenue, Woodhaven, L. I., N. Y.
 Bronznick, George
 31 East 111 Street, New York City
 Broverman, Abraham Louis
 111 Barbour Street, Hartford, Conn.
 Bucci, Domenick
 136 Henderson Street, Port Chester, N. Y.
 Bucholz, Samuel 272 So. 9 Street, Brooklyn, N. Y.
 Bulhack, Morris John
 316 East 82 Street, New York City
 Cagnina, Vincent Bruno
 829 Willoughby Ave., Brooklyn, N. Y.
 Carroll, George L. Suffern, N. Y.
 Cassani, James Guy
 158 Central Avenue, Chelsea, Mass.
 Cherkis, Louis Myron
 606 Ashford Street, Brooklyn, N. Y.
 Christmann, Herman Carl
 Valley Stream, L. I., N. Y.
 Cohen, Adolf
 553 Humboldt Street, Union Hill, N. J.
 Cohen, Alexander
 516 West 156 Street, New York City
 Cohen, David
 179 East 105 Street, New York City
 Cohen, Morris
 1374 Boston Road, New York City
 Coleman, Peter Fred
 3314 Cortelyou Road, Brooklyn, N. Y.
 Cuneo, Irene Teresa
 41 West 8 Street, New York City
 Danielson, John Joseph
 977 Hack Plankroad, No. Bergen, N. J.
 Datri, William Francis
 182 Bay 13 Street, Brooklyn, N. Y.
 Derow, Frank Uncasville, Conn.
 Diamond, Joseph Leo
 27 Emmons Street, Long Branch, N. J.
 Dickman, Harry
 475 Alabama Avenue, Brooklyn, N. Y.
 Dickter, James
 475 Sackman Street, Brooklyn, N. Y.
 Dietz, William Jacob
 2 Holbrook Street, Port Jervis, N. Y.
 Dimler, Marguerite Caroline
 104-9th Street, Hoboken, N. J.
 Dishler, Max
 101 West 47 Street, Bayonne, N. J.
 Dorfman, Jacob Simcho
 1444-43rd Street, Brooklyn, N. Y.
 Drexler, Jacob
 2021 LaFontaine Avenue, New York City
 Dubin, William
 1001 St. Nicholas Avenue, New York City
 Duff, Gordon Charles
 Thomaston, Litchfield Co., Conn.
 DuPlessis, Leon Philip
 38 Hubbard Street, Meriden, Conn.
 Ebner, Samuel
 144 Attorney Street, New York City
 Egry, Charles
 58-18th Avenue, Long Island City, N. Y.
 Elinson, Sam
 68 East 107 Street, New York City
 Ellenbogen, Rae Turim, Mrs.
 257 East 2 Street, New York City
 Fagen, Max
 7516-20th Street, Brooklyn, N. Y.
 Failmezzger, Theodore Richard
 Metuchen, Middlesex, N. J.
 Feigenbaum, Robert
 606 East 83 Street, New York City
 Feiner, Alexander
 54 Columbia Street, New York City
 Feld, Fischel
 754 East 161 Street, New York City
 Fenney, Nicholas William
 570 Elm Street, New Haven, Conn.
 Ferriolo, Anthony Marino
 278 St. John's Street, New Haven, Conn.
 Finkelstein, Benjamin
 770 East 168 Street, New York City
 Frankel, Max
 156 Second Avenue, New York City
 Frey, Benjamin
 891 Jefferson Avenue, Brooklyn, N. Y.
 Friedman, Paul Julius
 484 East 164 Street, New York City
 Garfunkel, Nelson
 1517 Third Avenue, New York City
 Gassler, Edward Isidor
 207 Graham Avenue, Brooklyn, N. Y.
 Gershovsky, Meyer
 1354-5th Avenue, New York City
 Gerstein, Max
 790 East 152 Street, New York City
 Getzoff, Arthur
 961 Simpson Street, New York City
 Glatzerman, Benjamin Colchester, Conn.
 Glickstern, Isidore
 416 East 10 Street, New York City
 Goldberg, Isaac
 390 Bellevue Street, Hartford, Conn.
 Goldberg, Samuel
 794 Elsmere Place, New York City
 Goldberg, Samuel S.
 542 Saratoga Avenue, Brooklyn, N. Y.
 Goldstein, Samuel Solomon
 542 Madison Street, Brooklyn, N. Y.
 Goldstein, Solomon
 1053 Avenue C, Bayonne, N. J.
 Gradstein, Solomon
 88 Avenue A, New York City

- Greenberg, Joseph
305 East 125 Street, New York City
- Greenberg, Max
Sheldon Avenue, Tarrytown, N. Y.
- Greenspun, Julius
294 Capitol Avenue, Bridgeport, Conn.
- Gubitosi, Emanuele
301 West 119 Street, New York City
- Gurry, Leo Francis
1305 Elm Street, Utica, N. Y.
- Gutchin, Samuel
66 Powell Street, Brooklyn, N. Y.
- Gutterman, Isadore
607 East 139 Street, New York City
- Halper, Benjamin H.
1208 Maple Avenue, Peekskill, N. Y.
- Halstater, Aaron
219 Waverley Avenue, Newark, N. J.
- Hamudis, David
2869 Bainbridge Avenue, New York City
- Harkavy, Isidore Alexander
502 West 177 Street, New York City
- Hartman, Otto Louis
944 Emma Street, Elizabeth, N. J.
- Hashinsky, Raphael
1720 Bath Avenue, Brooklyn, N. Y.
- Hauck, Rudolf Otto
3511-34th Street, Jackson Heights, L. I., N. Y.
- Haussman, Paul Julius
379 College Avenue, New York City
- Heimoff, Abraham
783 Beck Street, New York City
- Heller, Samuel
2211 Second Avenue, New York City
- Herman, Minnie
16 West End Court, West End, N. J.
- Herschkowitz, Edward Ellie
74 East 114 Street, New York City
- Hill, Henry 158 Bay 31 Street, Brooklyn, N. Y.
- Hirsch, Rubin Leon
963 Prospect Avenue, New York City
- Holland, Nathan
746 Madison Ave., Bridgeport, Conn.
- Holub, George
529 East 72 Street, New York City
- Horowitz, Hyman
216 Summer Avenue, Brooklyn, N. Y.
- Horowitz, Sam
365 South 3 Street, Brooklyn, N. Y.
- Howard, William H.
214 West 141 Street, New York City
- Hurwitz, Raymond
30 Halper Street, Hartford, Conn.
- Ingram, Chauncey
51 Bristol Street, Brooklyn, N. Y.
- Itzkowitz, William
1717-60th Street, Brooklyn, N. Y.
- Jacobs, Louis
4404-13th Avenue, Brooklyn, N. Y.
- Jannuzzi, Patrick
2 Howard Place, Jersey City, N. J.
- Kaine, David Harold
1115 Boston Road, New York City
- Kaplan, Arthur
2014 Bryant Avenue, New York City
- Kaplan, Israel Julius
310 East 101 Street, New York City
- Kaplan, Louis
503 Boulevard, Bayonne, N. J.
- Karchmer, Harry
375 Brook Avenue, New York City
- Katztoff, David
946 Bronx Park South, New York City
- Keese, Percival
57 Clifton Place, Brooklyn, N. Y.
- Kiesler, Frederick
317 East 18 Street, New York City
- Kirsch, Sol
276 East 23 Street, Brooklyn, N. Y.
- Kittay, Morris
52 East 103 Street, New York City
- Klatt, Gustave A.
Tallman Place, Englewood, N. J.
- Klein, Isadore
Fleischmann's, N. Y.
- Klugman, Sam
329 East 56 Street, New York City
- Knippler, Arthur August
241 Court Street, Brooklyn, N. Y.
- Kobin, Henry
1364 Sterling Place, Brooklyn, N. Y.
- Kopel, Joseph
2 Bay Terrace, Brooklyn, N. Y.
- Kotler, Leo
1938 Loring Place, New York City
- Kramer, Saul
1364 Washington Avenue, New York City
- Krause, Theodore Nicholas
269 Linden Street, Brooklyn, N. Y.
- Kressner, Bernard
218 East 81 Street, New York City
- Kressner, Jack H.
231 Division Avenue, Brooklyn, N. Y.
- Kurtz, Sam
315 East Mt. Eden Avenue, New York City
- Kushner, Irwin
1490 Crotona Park East, New York City
- Lambert, Israel
1570 Washington Avenue, New York City
- Lantzis, Philip
786 East 182 Street, New York City
- Lascoff, Dudley Victor
336 West 95 Street, New York City
- Lazarovitz, Leo
2123 Clinton Avenue, New York City
- Leblang, David
101 Wayne Street, Middle Village, N. Y.
- Leibowitz, Leon
594 East 138 Street, New York City

- Lellis, Julia
 267 Sumpter Street, Brooklyn, N. Y.
 Leone, Daniel
 232 Franklin Street, Norwich, Conn.
 Levin, Fred
 77-12th Avenue, Paterson, N. J.
 Levin, Morris
 651½ Koscuisko Street, Brooklyn, N. Y.
 Levine, Abraham
 48 Temple Place, Passaic, N. J.
 Levine, Mortimer
 1568-50th Street, Brooklyn, N. Y.
 Levinsky, Max
 796 Pembroke Street, Bridgeport, Conn.
 Levitch, Nathaniel
 1640-78th Street, Brooklyn, N. Y.
 Liberman, Bennett
 17 Attorney Street, New York City
 Liberman, Samuel Solomon
 17 Attorney Street, New York City
 Linzer, Samuel
 721 Hancock Street, Brooklyn, N. Y.
 Lipman, Louis
 54 Jefferson Street, Poughkeepsie, N. Y.
 Lipschutz, Joseph H.
 105 So. 9th Street, Brooklyn, N. Y.
 McCoy, Alfred Lawrence
 47 Park Avenue, Port Chester, N. Y.
 McKaba, George
 134 State Street, Brooklyn, N. Y.
 Magaram, Henry
 110 Delancey Street, New York City
 Mandell, Adolph Herman
 191 Moore Street, Barberton, Ohio
 Marano, Rosario
 304 East 106 Street, New York City
 Margolin, Abraham
 59 East 100 Street, New York City
 Marotta, Attilio R.
 104-14 Edson Place, Corona, N. Y.
 Marshall, Francis Edward
 203 Buffalo Street, Fulton, N. Y.
 Mascia, Violet
 759 North Oak Drive, New York City
 Maslinoff, Joseph Louis
 3 Jaggar Avenue, Flushing, L. I., N. Y.
 Mayzell, Julius
 55 Cooper Avenue, Long Branch, N. J.
 Megibow, Morris
 121-17th Street, W. New York, N. J.
 Meyers, Abe
 1158-55th Street, Brooklyn, N. Y.
 Miale, Joseph Peter
 341 East 16 Street, New York City
 Milliman, George E.
 13 Upton Park, Rochester, N. Y.
 Millindorf, Hyman Box 291, Colchester, Conn.
 Mintzis, Schlioma A.
 245 E. Broadway, New York City
 Mirsky, Fred
 927 East 181 Street, New York City
 Monza, Peter Frank
 128 West 48 Street, New York City
 Moore, Edward Willis
 624 Broadway, Newburgh, N. Y.
 Munves, Lillian
 6622-22nd Avenue, Brooklyn, N. Y.
 Murphy, Harry Edwin
 Main Street, Chateaugay, N. Y.
 Murray, John Leslie
 107 Clove Avenue, Haverstraw, N. Y.
 Naidorf, Charles
 518 Saratoga Avenue, Brooklyn, N. Y.
 Naylor, Montford David
 235 East 75 Street, New York City
 Nebel, Arthur David
 393 East 35 Street, Brooklyn, N. Y.
 Nemiroff, Israel
 1178-42 Street, Brooklyn, N. Y.
 Nemzer, Samuel
 60 East 117 Street, New York City
 Nerrie, James Scott
 7 Lafayette Avenue, Beacon, N. Y.
 Nevelsky, Harry
 79 East 107 Street, New York City
 Norr, George August
 42 Coplar Street, Jersey City, N. J.
 Oberweger, Maurice
 125 Division Avenue, Brooklyn, N. Y.
 Orlick, Isidore
 152 Newport Avenue, Brooklyn, N. Y.
 Ostrow, Charles
 677 Marcy Avenue, Brooklyn, N. Y.
 Oxley, Barrett 172 Broadway, Long Branch, N. J.
 Papalia, Peter
 600-35th Street, No. Bergen, Woodcliff, N. J.
 Papalinsky, Harry
 1001 Lincoln Place, Brooklyn, N. Y.
 Parks, C. Clayton
 4 Park Avenue, Ext., Naugatuck, Conn.
 Passman, Meyer
 636 Essex Street, Brooklyn, N. Y.
 Pawlik, Alexander
 23 Terrace Avenue, W. Paterson, N. J.
 Pearl, Frank Aaron
 55 West 110 Street, New York City
 Pearlman, Isidore T.
 3195 Fulton Street, Brooklyn, N. Y.
 Peller, Frank
 867 DeKalb Avenue, Brooklyn, N. Y.
 Perkins, Harold Ausmer
 39 Forest Avenue, Glen Cove, N. Y.
 Petter, Elias
 760 Trinity Avenue, New York City
 Petter, Phillip
 760 Trinity Avenue, New York City
 Picower, Abraham Harry
 1045 Lowell Street, New York City

- Plaskowitz, Philip
286 East 3 Street, New York City
- Platzman, Philip
1242 Boynton Avenue, New York City
- Plotkin, Maurice Eli
119-15th Street, Brooklyn, N. Y.
- Pokorny, Frank Joseph
361 East 71 Street, New York City
- Poliakoff, Solomon
1776 Weeks Avenue, New York City
- Pollack, Isidore
107 Bay 13th Street, Brooklyn, N. Y.
- Pollack, Sol
52 Reid Avenue, Brooklyn, N. Y.
- Polo, Nathan
4718 Fort Hamilton Parkway, Bklyn, N. Y.
- Propper, Ruth Hortense
225 Chestnut Street, Garfield, N. J.
- Rabinowitz, Harry William
57 Shpoler Avenue, Corona, N. Y.
- Rabinowitz, Leo
1422-2nd Avenue, New York City
- Rackard, George Martin
145 West 135 Street, New York City
- Rappaport, Philip
172 Monroe Street, New York City
- Reiser, Abraham
22 West 118th Street, New York City
- Ricciardelli, Sylvia
241 Montgomery Street, Jersey City, N. J.
- Rich, Leonard
134 Maple Avenue, Rye, N. Y.
- Rippert, Gomer Jenner
176 Center Street, Ellenville, N. Y.
- Roemer, Sidney Saul
977 Simpson Street, New York City
- Rosenberg, David
1364 Brook Avenue, New York City
- Rosenberg, Emanuele
126 Cannon Street, New York City
- Rosenberg, Samuel
156 Bassett Street, New Haven, Conn.
- Rosenblum, Goodman
37 Tapscott Street, Brooklyn, N. Y.
- Rosenfield, Charles
190 Windsor Street, Hartford, Conn.
- Rosenoff, Arthur
938 Intervale Avenue, New York City
- Rosenzweig, Blanche Ada
361 Halsey Street, Brooklyn, N. Y.
- Rosinger, Nicolaus
480 East 141 Street, New York City
- Roth, Moe
906 East 178 Street, New York City
- Rothfeld, Joseph
1295 Madison Avenue, New York City
- Rothstein, Joseph
286 East Broadway, New York City
- Rovero, Elizabeth
304 East 28 Street, New York City
- Rudes, Isaac
151-2nd Avenue, New York City
- Ryan, William Francis
1622 Bennett Street, Utica, N. Y.
- Sabella, John Frank
91 Church Avenue, Brooklyn, N. Y.
- Sager, Julius
95 West 41 Street, Bayonne, N. J.
- Samnick, Milton
835 West 178th Street, New York City
- Samourkashian, Manook N.
37 Howell Place, Arlington, N. J.
- Sanders, Joseph
995 Union Avenue, New York City
- Sass, Julius
Hankins, Sullivan Co., N. Y.
- Savatsky, Isaac
705 Belmont Avenue, Brooklyn, N. Y.
- Savin, Maurice
48 Hurlburt Street, New Haven, Conn.
- Saylor, Joseph W.
200 South Duke Street, York, Pa.
- Scandifio, Nicholas Robert
16 Grand Avenue, Baldwin, N. Y.
- Schaeffer, Sophie
101 West 115 Street, New York City
- Schenfeld, Joseph
110 West 119th Street, New York City
- Schneiderman, Jack
2953 West 28 Street, Brooklyn, N. Y.
- Schulman, Max
171 Broadway, Newburgh, N. Y.
- Schwartz, David
931-48th Street, Brooklyn, N. Y.
- Schwartzkroin, Isaac
1222 Ward Avenue, New York City
- Scognamiglio, Pasquale
10 Marshall Street, Paterson, N. J.
- Scolney, Isaac Joseph
889 East 176 Street, New York City
- Selinger, Benjamin
91 Debevoise Street, Brooklyn, N. Y.
- Seller, Joseph
35 Harrison Avenue, Brooklyn, N. Y.
- Seloff, Ida
1662 Boston Road, New York City
- Serote, Morris
68 Garden Street, Poughkeepsie, N. Y.
- Shaffet, Nelson
650 Linden Boulevard, Brooklyn, N. Y.
- Sharal, Daniel
1420-49th Street, Brooklyn, N. Y.
- Shavitz, Samuel
416 Undercliff Avenue, Edgewater, N. J.
- Sher, David
184 School Street, Quincy, Mass.
- Shuman, Max
945 Main Street, New Rochelle, N. Y.
- Siegel, Aaron Joseph
110 Potter Street, New London, Conn.
- Siegel, Hyman
20 Herzel Street, Brooklyn, N. Y.

- Siegel, Jacob
29 East 104 Street, New York City
- Siegel, Jacob N.
7811-18th Avenue, Brooklyn, N. Y.
- Silberfarb, Louis B.
1306 College Avenue, New York City
- Silverman, Herbert Henry
272 Varick Street, Jersey City, N. J.
- Silverman, Isidore
369 Vernon Avenue, Brooklyn, N. Y.
- Simpson, Charles Harland, Jr.
188 Broadway, Newburgh, N. Y.
- Sklar, Nathan
27 Rutgers Street, New York City
- Slavin, Jacob
632 East 11 Street, New York City
- Smith, Morton Ralph
174 East 71 Street, New York City
- Smith, Richard Schofield
50 Sylvan Street, Rutherford, N. J.
- Soll, Samuel
77 East 4 Street, New York City
- Stein, Max
111 East 118 Street, New York City
- Stella, Nello
351 East 19 Street, New York City
- Stenzler, Abraham
25 East 99 Street, New York City
- Stoeffler, Harold
21 Henry Street, Waterbury, Conn.
- Stoliar, Abraham
165 Garfield Avenue, Long Branch, N. J.
- Strumph, Nathan
302 East 100 Street, New York City
- Sussman, Harry
559 Nostrand Avenue, Brooklyn, N. Y.
- Sutin, Samuel Charles
1724 Washington Avenue, New York
- Swersky, Israel
47 Cooper Avenue, Long Branch, N. J.
- Temliak, Irving
48 East 103 Street, New York City
- Terranova, Dominick
Purdy Street, Harrison, N. Y.
- Tindall, George Richard
136 Liberty Street, Long Branch, N. J.
- Tobolsky, Abraham
8 East 97 Street, New York City
- Travis, Louis
3972-3rd Avenue, New York City
- Triolo, Peter
79 Jamaica Avenue, Brooklyn, N. Y.
- Trumpler, Philip
681 East 221 Street, New York City
- Turetzky, Charles
101 W. Main Street, Norwich, New London,
Conn.
- Tweedy, Irving Ira
74 Tompkins Avenue, Brooklyn, N. Y.
- Ultan, Harry
875 Fairmount Place, New York City
- Underwood, Ralph Edward
233 Duncan Avenue, Jersey City, N. J.
- VanBlarcom, Vernon Bristol
46 Armstrong Avenue, Jersey City, N. J.
- Vener, Benjamin
336 Green Avenue, Brooklyn, N. Y.
- Vertes, William
315 West 54 Street, New York City
- Vigliano, Mario
219 Grand Street, New York City
- Wallach, Harry
1649-78th Street, Brooklyn, N. Y.
- Walter, Ishmael Claymond
6620 Larkin Street, Arverne, N. Y.
- Wasserwolf-Kaczka, Leibisz
591 East 140 Street, New York City
- Wechsler, Ethel
6 Greene Street, Monticello, N. Y.
- Weiner, Irving Edward
212 West Main Street, Somerville, N. J.
- Weingast, Sophie
553 Georgia Avenue, Brooklyn, N. Y.
- Weinraub, Samuel
R. F. D. No. 3 New Brunswick, N. J.
- Weinstein, Max
1657 Lexington Avenue, New York City
- Weinstein, Seymour
1109 Franklin Avenue, New York City
- Weiss, Simon
780 East 180 Street, New York City
- Willner, Abraham Bernard
1878 Lexington Avenue, New York City
- Wilner, Herman James
57 Bishop Street, Waterbury, Conn.
- Wolfson, Solomon
342 East 15 Street, New York City
- YaDeau, George James
116 Henry Avenue, Palisade Park, N. J.
- Yeckel, Harold Frederick
1432 Francis Street, Utica, N. Y.
- Zager, Samuel William
558 Elm Street, New Haven, Conn.
- Zeviner, Hyman
610 East 9 Street, New York City
- Zimels, Bernhard
71 East 109 Street, New York City
- Zuckerman, Harry
1070 Stebbins Avenue, New York City
- Zuckerman, Nathan
72 Powell Street, Brooklyn, N. Y.
- Zupp, Edmund H.
6 Pine Street, Ellenville, Ulster Co., N. Y.

GRADUATES IN PHARMACY, SEPTEMBER 12, 1925

- Abramowich, Lazarus
 1544 East 4th Street, Brooklyn, N. Y.
 Abramowitz, Harry
 400 Madison Avenue, Paterson, N. J.
 Avignone, Horatio Joseph
 9 South 22nd Street, Flushing, N. Y.
 Balicer, Max
 239 East 122nd Street, New York, N. Y.
 Birnbaum, Dora
 191 South 2nd Street, Brooklyn, N. Y.
 Bronstein, Morris
 1267 Grant Avenue, New York, N. Y.
 Bugle, Howard Francis
 73 West 51st Street, Bayonne, N. J.
 Celano, Adalgisa
 2282 Arthur Avenue, New York, N. Y.
 Chaderton, William E.
 533 Third Avenue, New York, N. Y.
 Cornish, Edwin Zoltan
 273 West 113th Street, New York, N. Y.
 De Vito, Anthony
 8724 Fourth Avenue, Brooklyn, N. Y.
 Dick, William Max
 4512-15th Avenue, Brooklyn, N. Y.
 D'Orsogna, Horatio William
 600 East 182nd Street, New York, N. Y.
 Fialk, Samuel Levitt
 198 Hopkins Avenue, Jersey City, N. J.
 Friedman, Bernard
 1949-62nd Street, Brooklyn, N. Y.
 Garcia, Manuel Las Piedras, Porto Rico
 Glick, Abraham Irving
 171 Meserole Street, Brooklyn, N. Y.
 Goldman, Milton Bernard
 9 West 117th Street, New York, N. Y.
 Goldstein, Hyman
 190 Easton Avenue, Waterbury, Conn.
 Goodman, Samuel
 496 Sackman Street, Brooklyn, N. Y.
 Goorian, Barnett
 84 Watkins Street, Brooklyn, N. Y.
 Gordon, Mary
 28 Middle Neck Road, Great Neck, L. I.
 Gorski, Walter
 157 Huron Street, Brooklyn, N. Y.
 Grosky, Maxwell
 2324 Davidson Avenue, New York, N. Y.
 Katz, Isidor Bernard
 739 New Jersey Avenue, Brooklyn, N. Y.
 Kokin, Samuel
 81 Stockholm Street, Brooklyn, N. Y.
 Kraft, Emanuel
 249 West 116th Street, New York, N. Y.
 Lazar, Isaac
 133 Avenue D, New York, N. Y.
 Levy, Hyman Isaac
 624 Euclid Avenue, Akron, Ohio
 Lipschultz, Henry
 6 Iorio Court, Jersey City, N. J.
 Lovett, Lawrence
 514-46th Street, Brooklyn, N. Y.
 Marchelos, Stelios
 257 East 48th Street, New York, N. Y.
 Papernik, Herman
 450 West 45th Street, New York, N. Y.
 Perlman, Joseph Howard
 1460 East 4th Street, Brooklyn, N. Y.
 Piccoli, Salvatore Thomas
 94 East 208th Street, New York, N. Y.
 Pierz, Walter Roman
 537-59th Street, Brooklyn, N. Y.
 Posner, Arthur Seymour
 1061 St. Nicholas Avenue, New York, N. Y.
 Press, Harry
 12 Carlton Street, Holyoke, Mass.
 Rang, Irving Franklin
 697 Halsey Street, Brooklyn, N. Y.
 Ransford, Warren Richard
 116 West 69th Street, New York, N. Y.
 Ressler, David Murray
 420 East 13th Street, New York, N. Y.
 Rosenzweig, Albert Jacob
 459 Claremont Parkway, New York, N. Y.
 Rothman, Harry
 106 Watson Avenue, Newark, N. J.
 Saks, Nathan
 108 Mercer Street, Jersey City, N. J.
 Salesnick, Isidore
 993 Union Avenue, New York, N. Y.
 Sandor, Henry Randolph
 2885 Briggs Avenue, New York, N. Y.
 Schafier, Sydney
 73 West 113th Street, New York, N. Y.
 Schwartz, Maurice
 1446-41st Street, Brooklyn, N. Y.
 Seidenstein, Morris
 601 West 172nd Street, New York, N. Y.
 Singer, Elkune Jechiel
 906 East 178th Street, New York, N. Y.
 Sorkin, Joseph
 9 East 107th Street, New York, N. Y.
 Spectorman, Harry
 967 Alden Street, New York, N. Y.
 Stein, Milton Arthur
 88 Second Avenue, Long Branch, N. J.
 Storck, Louis Eliot
 700 Main Street, New Rochelle, N. Y.
 Strick, Anna
 317 East 10th Street, New York, N. Y.
 Szel, Joseph 25 Arden Street, New York, N. Y.
 Tingley, Warren Albert
 33 High Street, Montrose, Pa.
 Tucker, Olivia Dalzell
 Warwick East, Spring Hill, Bermuda

Waterbury, Theodore
170 West 73rd Street, New York, N. Y.
Weidner, Joseph Bernard
Oyster Bay, N. Y.
Weissberger, Milton
1821 Mohegan Avenue, New York, N. Y.

Wiseman, Charles
1727 East 18th Street, Brooklyn, N. Y.
Zimmerman, Israel
2261-63rd Street, Brooklyn, N. Y.

(63)

REGISTER OF STUDENTS 1925-1926

SENIOR UNIVERSITY CLASS

Braff, Alexander Elias
106 Ridge Street, New York, N. Y.
Hutchison, Emma (Mrs.) Memphis, Tenn.
Macсата, William J.
540 W. 189 Street, New York, N. Y.

(3)

JUNIOR UNIVERSITY CLASS

Adams, Joseph Edison
63 Hopkins Ave., Jersey City, N. J.
Alfieri, Joseph Domenic
282 So. Main St., Waterbury, Conn.
Bucci, Domenick
136 Henderson St., Portchester, N. Y.
Dimler, Marguerite Caroline
104-9th Street, Hoboken, N. J.
Failmeizer, Theodore Richard, Metuchen, N. J.
Gutchin, Samuel
66 Powell Street, Brooklyn, N. Y.
Hauck, Rudolf Otto
3511-34th Street, Jackson Heights, N. Y.
Levin, Fred 77-12th Avenue, Paterson, N. J.
Liberman, Samuel Solomon
17 Attorney Street, New York, N. Y.
Miale, Joseph Peter
341 E. 16 Street, New York, N. Y.
Milliman, George E.
13 Upton Park, Rochester, N. Y.
Pokorny, Frank Joseph
52-15 Hospel St., Elmhurst, N. Y.
Rang, Irving Franklin
697 Halsey Street, Brooklyn, N. Y.
Ricciardelli, Sylvia Helen
241 Montgomery Street, Jersey City, N. J.
Rovero, Elizabeth Rita
304 E. 28th Street, New York, N. Y.
Sabella, John Frank
91 Church Ave., Brooklyn, N. Y.
Sager, Julius
95 West 41 Street, Bayonne, N. J.
Triolo, Peter
79 Jamaica Ave., Brooklyn, N. Y.
Trumpler, Philip
681 E. 221 Street, New York, N. Y.
Vigliano, Mario Francis
219 Grand Street, New York, N. Y.

(20)

SOPHOMORE UNIVERSITY CLASS

Ambrose, Dominick Bernard
71 Congress Street, Newark, N. J.
Anselmi, Edward
461 Rogers Avenue, Brooklyn, N. Y.
Becker, Julius Linden
756 Saratoga Avenue, Brooklyn, N. Y.
Berkowitz, George
1074 East Parkway, Brooklyn, N. Y.
Bevacqua, Alfred
298 Newark Avenue, Jersey City, N. J.
Brunswick, Jerome Alfred
119 E. 83 Street, New York City
Buccino, Ralph Joseph
307 Nicol Street, Bridgeport, Conn.
Cody, Catherine Elizabeth
94 Main Street, Canaan, Conn.
Durfee, Olive
333 Martin Street, San José, Cal.
Emdin, Loftus Edward
1556 Howard Avenue, Utica, N. Y.
Goldberg, Julius
20 Rutger's Place, New York, N. Y.
Goldberg, Samuel
213 Seigel Street, Brooklyn, N. Y.
Goldin, Frank
312 Van Nostrand Avenue, Jersey City, N. J.
Grossmann, Mollie
1040 Kelly Street, New York, N. Y.
Guisado, Frank Edward
100 Pineapple Street, Brooklyn, N. Y.
Johnson, Eric P.
211 E. 33 Street, New York, N. Y.
Kitts, Edward Angermire
Richfield Springs, N. Y.
Litsky, Max
72 Central Street, Ansonia, Conn.
Malorofsky, David
23 Suffolk Street, New York, N. Y.
Mazilauskas, Edward T.
58 Hotchkiss Street, Naugatuck, Conn.
Mazlish, David J.
137a DeKalb Avenue Jersey City, N. J.
Moore, Ammon Maurice
1135 E. Terrell Avenue, Ft. Worth, Tex.
O'Brien, Samuel Graham
14 Smith Street, Port Chester, N. Y.
Papazian, Garabed Simon
160 E. 62 Street, New York, N. Y.

Pospisil, Anton Joseph
30-70 32 Street, Astoria, N. Y.
Prestia, Ignatius
167 Graham Avenue, Brooklyn, N. Y.
Rizzuto, Joseph
1065 DeKalb Avenue, Brooklyn, N. Y.
Rosenberg, Max
875 Brooklyn Avenue, Brooklyn, N. Y.
Snyder, Rolland Stanley
2543 Marion Avenue, New York, N. Y.
Sudakow, Morris
111 Henwood Street, New York, N. Y.
Tewksbury, Rolland Humphrey
99-7th Street, Bangor, Maine
Van Stone, Theodore Borden
350 Main Street, Hackensack, N. J.
(32)

FRESHMAN UNIVERSITY CLASS

Abramowitz, Abraham
60 E. 3 Street, New York, N. Y.
Achilson, Peter Lazarus
2117 East 13 Street, Brooklyn, N. Y.
Adler, Alan 61 East 3 Street, Brooklyn, N. Y.
Allen, Namon Oakwood, Texas
Amatucci, Laura
1984-84 Street, Brooklyn, N. Y.
Arkush, Mitchell Julius
99 Bergenline Avenue, Union Hill, N. J.
Atkin, Nathan
124 Beach 38 Street, Edgemere, N. Y.
Baiczor, Abraham Irving
5 Goerck Street, New York, N. Y.
Becker, Herbert Chester
777 Woodward Ave., Brooklyn, N. Y.
Beckerman, Sidney
1697 Lexington Ave., New York, N. Y.
Benson, Mary Louise
454 Church Street, Elmira, N. Y.
Biernoff, Joseph
336 E. 81 Street, New York, N. Y.
Blatt, Maurice Joseph
23 Montgomery Street, Newburgh, N. Y.
Brecher, Isaac
547 West Side Ave., Jersey City, N. J.
Burch, Egbert A. St. Georges, Bermuda
Clott, George
129 Stevens Avenue, Jersey City, N. J.
Cohen, George
91 West 17 Street, Bayonne, N. J.
Cohen, Irving Samuel
357 Mamaroneck Ave., Mamaroneck, N. Y.
Cohen, Morris
82 Madison Street, New York, N. Y.
Cohen, Samuel
2212 Surf Avenue, Brooklyn, N. Y.
Davenport, Renald Sweet Valley, Pa.
DeFusco, Rachel
330 Newark Avenue, Jersey City, N. J.
Dick, Lester Colby
Division Street, Keyport, N. Y.
DiMauro, Vincent Philip
1326-58th Street, Brooklyn, N. Y.
Dixon, Wallace William
815 Wilson Avenue, Chicago, Ill.
Droga, Simon
680 Beck Street, New York, N. Y.
Drucker, David M.
199 Forsyth Street, New York, N. Y.
Dubinsky, Isidore
166 Avenue C, New York, N. Y.
Einhorn, Charles
180 Riverdale Ave., Brooklyn, N. Y.
Eisenberg, Joseph
194 York Street, Jersey City, N. J.
Eisner, Samuel
747 E. 5 Street, New York, N. Y.
Epstein, Aaron
345 Chester Street, Brooklyn, N. Y.
Epstein, George
105 Nott Avenue, Long Island City, N. Y.
Fanelli, Domenick
547-4th Avenue, Brooklyn, N. Y.
Gatov, Louis
242 Claremont Avenue, Jersey City, N. J.
Gattuso, Charles
22 Rivington Street, New York, N. Y.
Geronimus, Herman Joseph
607 Barbey Street, Brooklyn, N. Y.
Giallombardo, Nicholas
212 Avenue B, New York, N. Y.
Ginn, Barnett
126 E. 7th Street, New York, N. Y.
Giordano, Herman
376 Frankfort Street Orange, N. J.
Giovaneili, Dominic
2376 Pacific Street, Brooklyn, N. Y.
Givens, Horace T. F.
6 Cottage Place, Freehold, N. J.
Goldberg, Max
1368 Myrtle Avenue, Brooklyn, N. Y.
Golden, Jonas
11a Louis Place, Brooklyn, N. Y.
Goldman, Harry
474 Warwick Street, Brooklyn, N. Y.
Grebel, Pincus
51 Forsyth Street, New York, N. Y.
Greenblatt, Percy
2441 Main Street, Stratford, Conn.
Gregorius, Ruth Anna
Central Ave. and Rockaway Turnpike,
Lawrence, N. Y.
Grodsky, Aa on
422 Chestnut Street, Springfield, Mass.
Gross, Samuel
424 E. 5 Street, New York, N. Y.

- Gussow, Charles Meyer
1451 Crotona Place, New York, N. Y.
- Herman, Milton
1464 Seabury Place, New York, N. Y.
- Hodes, Julius
115 Wadsworth Avenue, New York, N. Y.
- Horin, Isadore Maynard
69 Carroll Street, Jamaica, N. Y.
- Horowitz, Simon
55 Willett Street, New York, N. Y.
- Hurwitz, Morris Herman
30 Harper Street, Hartford, Conn.
- Johnson, Cornelius Lee
828 Corgie Street, Cape May, N. J.
- Kandrat, Helen
417 E. 25 Street, Brooklyn, N. Y.
- Kantrowitz, Israel
181 Madison Street New York, N. Y.
- Kaplan, Frances Mildred Amenia, N. Y.
- Kaplan, George
866 Hunts Point Avenue, New York, N. Y.
- Katz, Sidney
211 E. 105th Street, New York, N. Y.
- Katzowitz, Morris
48 Ludlow Street, New York, N. Y.
- Keller, Joseph
3258-25 Street, Jamaica Hgts., N. Y.
- Kibbe, August Geissel
162 Egbert Avenue, W. New Brighton, N. Y.
- Klein, Samuel 340 E. 4 Street, Brooklyn, N. Y.
- LaMaichia, Mildred Mary
162 Day Street, New Haven, Conn.
- Lauri, Victor
210 DeGraw Avenue, Brooklyn, N. Y.
- Learner, Benjamin
7 Ridgely Place, Weehawken, N. J.
- Lebensart, Manning
246 W. 25 Street, New York, N. Y.
- Lebrenz, George Frederick A.
Cherry Lane and Westfield Ave., Teaneck, N. J.
- Leibowitz, Max
423 Tompkins Avenue, Brooklyn, N. Y.
- Levinsohn, Arthur
26 So. Bridge Street, Poughkeepsie, N. Y.
- Levy, Gussie Florence
512 Blum Street, Town of Union, N. J.
- Lippe, Abraham Alfred
916 Blake Avenue, Brooklyn, N. Y.
- Maggio, John Salvatore
107 Ridgewood Avenue, Brooklyn, N. Y.
- Malinoff, Elias Alexander
1640 Washington Ave., New York, N. Y.
- Marconi, Raphael, Jr.
549 Anderson Avenue, Woodridge, N. J.
- Metlitz, Henry Nannet, N. Y.
- Michaels, Jacob
1433 Bryant Avenue, New York, N. Y.
- Miller, Isidore Henry
337 Ridge Avenue, Lakewood, N. J.
- Montemurro, Thomas
531 Liberty Street, Union City, N. J.
- Moskovitz, Jerome Louis
231 Norman Street, Bridgeport, Conn.
- Neuman, Harry
215 Lawrence Place, Paterson, N. J.
- Neveloff, Aaron
46 Hoyt Street, Brooklyn, N. Y.
- Ortega, Louis Bernard
546 W. 147 Street, New York, N. Y.
- Palmera, Jerome John
274 Third Street, Jersey City, N. J.
- Paulonis, Edward Peter
1357 Bushwick Avenue, Brooklyn, N. Y.
- Peltz, Phillip William
319-27th Street, Newport News, Va.
- Pessman, Abraham
1934-71st Street, Brooklyn, N. Y.
- Pillone, Maria
123 Lincoln Ave., Ridgefield Pk., N. J.
- Porte, Solomon
2054-63rd Street, Brooklyn, N. Y.
- Pucci, Guido 614 Hague Street, Union City, N. J.
- Rifkin, Isidor
2026 Douglass Street, Brooklyn, N. Y.
- Rochelson, George
1416 Stebbins Avenue, New York, N. Y.
- Rocker, Philip
188 Allen Street, New York, N. Y.
- Rossi, Filomena Florence
30 Macdougall Street, New York City
- Saldinger, Karl
554 DeKalb Avenue, Brooklyn, N. Y.
- Schimmel, Moses
3045 Ocean Parkway, Coney Island, N. Y.
- Schlagel, Charles Jacob
18 Oak Street, Beacon, N. Y.
- Schmilowitz, Samuel
445 Fulton Street, Jamaica, N. Y.
- Schmurok, Leon
19 Sterling Place, Edgewater, N. J.
- Schopmann, William Henry
103 Grace Street, Jersey City, N. J.
- Schultz, Joseph
990 Aldus Street, New York, N. Y.
- Schutte, Bernard
1837 Clinton Avenue, New York, N. Y.
- Schutzbank, Victor
R. F. D. No. 3, Lakewood, N. J.
- Schwartz, Max
1629 Lexington Avenue, New York, N. Y.
- Scowcroft, Ronald
582 Craig Avenue, Tottenville, N. Y.
- Seng, John Warren
107 Carroll Place, New Brunswick, N. J.
- Shapiro, Harry
176 Riverdale Avenue, Brooklyn, N. Y.
- Siegel, Isidore
203 E. 96th Street, New York, N. Y.

- Simon, Harry
28 Gouverneur Street, New York, N. Y.
- Simon, Isidore Merenholz
366 Hamilton Avenue, Paterson, N. J.
- Simone, Catharine Bellina
Croton-on-Hudson, N. Y.
- Sobel, Joseph
194 E. Main Street, Bridgeport, Conn.
- Spielman, Samuel
884 Whitlock Avenue, New York, N. Y.
- Stauber Robert August
R. D. No 15 Groton, N. Y.
- Steinberg, Abraham
400 Sheffield Avenue, Brooklyn, N. Y.
- Sternberg, Morris
9 Debevoise Street, Brooklyn, N. Y.
- Stock, George Thomas
Pawling, N. Y.
- Thierer, Lionel Louis
831 E. 163 Street, New York, N. Y.
- Tiesler, Adolph Edward
Pleasantville, N. Y.
- Tisch, Leo
1411 Madison Avenue, New York, N. Y.
- Topilow, Jacob
155 W. 29 Street, Bayonne, N. J.
- Tuchband, Louis
Arlington Avenue, Bergenfield, N. J.
- Vanderman, Joseph
22 Roseland Avenue, Waterbury, Conn.
- Warren, Cameron Clyde
30 Walkill Avenue, Middletown, N. Y.
- Weisman, Isadore
37 Kingsbury Street, Waterbury, Conn.
- Weiss, Harry
1447 Longfellow Avenue, New York, N. Y.
- Yablonowitz, Abraham
1 East 112th Street, New York, N. Y.
- Zabner, Jacob
954 Hoe Avenue, New York, N. Y.
- (131)
- SECOND YEAR COLLEGE CLASS
- Abbate, Rosario
182 Cooper Street, Brooklyn, N. Y.
- Abeloff, Aaron H.
125 No. White Street, Shenandoah, Pa.
- Abrahamson, Abraham E.
133 Avenue D, New York, N. Y.
- Adler, Max Emanuel
228 East 99 Street, New York, N. Y.
- Adrezin, Edward
405 Hinsdale Street, Brooklyn, N. Y.
- Aizerman, Jack
104 East 2 Street, New York, N. Y.
- Allahut, Max
250 Penn Street, Brooklyn, N. Y.
- Allen, Solomon Samuel
860 E. 161 Street, New York, N. Y.
- Baderman, Michael
33 Avenue D, New York, N. Y.
- Bankoff, Nathan
230 Monroe Street, New York, N. Y.
- Bard, Aaron
1681 Vyse Street, New York, N. Y.
- Baron, Harry
1352 St. Nicholas Avenue, New York, N. Y.
- Barreca, James Vincent
25 Forsyth Street, New York, N. Y.
- Baum, Jonathan
142 Morton Place, New York, N. Y.
- Beck, Sam
140 Trenton Avenue, White Plains, N. Y.
- Beeber, Morris
134 Clymer Street, Brooklyn, N. Y.
- Bellis, Bernard
55 Clinton Place, New York, N. Y.
- Bennett, Marian
950 Marcy Avenue, Brooklyn, N. Y.
- Berg, Henry
169 E. 105 Street, New York, N. Y.
- Berkowitz, Samuel
36 Bristol Street, Brooklyn, N. Y.
- Bleifeld, Solomon
555 Linwood Street, Brooklyn, N. Y.
- Bode, Emma
120 French Street, New Brunswick, N. J.
- Bonanno, Michael
2120 Jerome Avenue, New York, N. Y.
- Borsuk, Irving M.
2348 Benson Avenue, Brooklyn, N. Y.
- Bregman, Alexander
128 East 104 Street, New York, N. Y.
- Brodawsky, Isador
530 East 134 Street, New York, N. Y.
- Brooks, Solomon
2131 Ocean Ave., Brooklyn, N. Y.
- Brown, Emanuel
2918 Fulton Street, Brooklyn, N. Y.
- Brownstein, Samuel Hyman
38 Seigel Street, Brooklyn, N. Y.
- Buckley, James Edwin
10 Cedar Street, Bangor, Maine
- Canter, Herbert B.
1890-7th Avenue, New York City
- Cantor, Louis Harry
340 Pleasant Street, Gardner, Mass.
- Cappelli, Antoinette
524 Wetmore Street, Utica, N. Y.
- Chary, Philip
70 Grafton Street, Brooklyn, N. Y.
- Chryn, Julius S.
1565 Grand Concourse, New York, N. Y.
- Chudnowsky, David
3009 Cooper Avenue, Glendale, N. Y.
- Chuisano, Pasquale
34 Bennington Avenue, Freeport, N. Y.
- Cipes, Leo R.
694 Melrose Avenue, New York, N. Y.
- Clericuzio, Thomas
517 Lincoln Street, Union City, N. J.

- Cohen, Abraham Irving
569 VanSicklen Avenue, Brooklyn, N. Y.
- Cohen, Philip
80-5th Avenue, Long Branch, N. J.
- Cohn, George
264 Hamilton Avenue, Paterson, N. J.
- Connors, Edward D.
205 Rockwell Avenue, Long Branch, N. J.
- Cooper, Jack
3885 Bedford Avenue, Brooklyn, N. Y.
- Coronato, Joseph J.
168 Hope Avenue, Rosebank, N. Y.
- Crystal, Adam
113 Floyd Street, Brooklyn, N. Y.
- Cutler, George
1268 Spoffard Avenue, New York, N. Y.
- Cutler, Samuel Melvin
1268 Spoffard Avenue, New York, N. Y.
- DeCesare, Nicholas
70 New Chambers Street, New York, N. Y.
- Deutsch, David
85 Lewis Street, New York, N. Y.
- Diamond, Joseph
375 Beekman Avenue, New York, N. Y.
- DiBitetto, Frank Robert
1878-63 Street, Brooklyn, N. Y.
- Diliberto, Paul Joseph
30 St. Jerome Avenue, Holyoke, Mass.
- DiMattina, Bartholomew
226 DeGraw Street, Brooklyn, N. Y.
- DiTolla, Alfred
370 Hallett Street, Astoria, N. Y.
- Divisek, Frank
433 E. 75 Street, New York, N. Y.
- Drach, Isidore
251 West 145 Street, New York, N. Y.
- Dreyer, Isaac
226 E. Broadway, New York, N. Y.
- Drosness, Benjamin
1580 E. Parkway, Brooklyn, N. Y.
- Dunst, Morris
404 West 44 Street, New York, N. Y.
- Durst, Benjamin
264 East 2 Street, New York, N. Y.
- Edlich, Adolph A.
361 East 50 Street, New York, N. Y.
- Egale, William
186 Ludlow Street, New York, N. Y.
- Eglichen, Nathan
1604 Madison Avenue, New York, N. Y.
- Ehrlich, Edward
338 Avenue A, Bayonne, N. J.
- Ehrlich, Louis
193 Highland Blvd., Brooklyn, N. Y.
- Eisen, Nathan
1557 St. Mark's Avenue, Brooklyn, N. Y.
- Essner, Isidore
382 So. 3 Street, Brooklyn, N. Y.
- Eyskens, Leo Joseph
618 Washington Street, Hoboken, N. J.
- Fankuchen, Irving
1302 Carroll Street, Brooklyn, N. Y.
- Fein, Ely
150 West 123 Street, New York, N. Y.
- Feinberg, Harry Isadore
340 Ellery Street, Brooklyn, N. Y.
- Fekler, Manes
229 Stockton Street, Brooklyn, N. Y.
- Feldman, Boris
2609 Briggs Avenue, New York, N. Y.
- Feller, Henry
1886 Douglass Street, Brooklyn, N. Y.
- Fisher, Joseph H.
932 Kelly Street, New York, N. Y.
- Florin, Sidney
622 Ocean Parkway, Brooklyn, N. Y.
- Folcarelli, Urbino E. G.
108 East 87 Street, New York, N. Y.
- Fox, Louis Asir
24-10 Street, W. New York, N. J.
- Friedbauer, Lewis M.
203 Park Avenue, Passaic, N. J.
- Friedman, Gustav
1054 Avenue C, Bayonne, N. J.
- Friedman, Louis
72 East 110 Street, New York, N. Y.
- Friedman, Philip
312 East 8 Street, New York, N. Y.
- Fuchs, Isidore
604 East 9 Street, New York, N. Y.
- Galluzzo, Rose
1082 Longfellow Avenue, New York, N. Y.
- Garfinkle, Howard
48 East 15 Street, Bayonne, N. J.
- Gavlas, Frank E.
1476 E. Main Street, Bridgeport, Conn.
- Giannunzio, Vincent J.
Box 190, Mamaroneck, N. Y.
- Gillette, Samuel
85 Madison Avenue, Bridgeport, Conn.
- Ginsberg, David
91 Woodruff Avenue, Brooklyn, N. Y.
- Glickman, Osias
349 So. 4 Street, Brooklyn, N. Y.
- Gluckman, Mark L.
195 Bay 29 Street, Brooklyn, N. Y.
- Gold, Charles
510 Marion Street, Brooklyn, N. Y.
- Gold, Herbert
221 East 121 Street, New York, N. Y.
- Goldblatt, Harold
768 Fox Street, New York, N. Y.
- Goldfarb, Louis
1346 Fulton Avenue, New York City
- Goldin, Noah
711 Ralph Avenue, Brooklyn, N. Y.
- Goldsmith, Jacob
56 Second Avenue, New York, N. Y.
- Goldstein, Archie
107-21-117 Street, Richmond Hill, N. Y.

- Goldstein, Isidore Jacob
527 Hinsdale Street, Brooklyn, N. Y.
- Goldstein, William Morris Monticello, N. Y.
- Goliger, Morris
2069-60 Street, Brooklyn, N. Y.
- Gottlieb, Eugene
64½ West 181 Street, New York, N. Y.
- Gottlieb, Hyman L.
830 Belmont Avenue, Brooklyn, N. Y.
- Gottlieb, Louis Tannersville, N. Y.
- Govendy, Morris
219 East 121 Street, New York, N. Y.
- Granata, James Innocenzo
59 Bowers Street, Jersey City, N. J.
- Gratt, Michael
957 Rogers Place, New York, N. Y.
- Gray, Donald Arthur
1517 Neilson Street, Utica, N. Y.
- Greek, James
528 Main Street, Union City, N. J.
- Greenberg, Lillian R.
113 Broome Street, New York, N. Y.
- Greenberg, Morris Milton
58 John Street, New Brunswick, N. J.
- Greenstein, Murray
106 Marcy Place, New York, N. Y.
- Grosman, Abraham
985 E. Tremont Avenue, New York, N. Y.
- Hall, Charles Dixon
10 Hartwell Street, New Brunswick, N. J.
- Hamburger, Hyman
229 East 103 Street, New York, N. Y.
- Harris, Joseph
775 E. 2 Street, Brooklyn, N. Y.
- Hashinsky, Edward
488 Snediker Avenue, Brooklyn, N. Y.
- Hawkins, Ralph
134 West 133 Street, New York City
- Hershkowitz, Leo
1345 Brook Avenue, New York, N. Y.
- Herzog, Herman Joseph
1208-51 Street, Brooklyn, N. Y.
- Hillmer, Walter Joseph
328 East 43 Street, New York, N. Y.
- Holmes, Herbert Cresskill, N. J.
- Hummel, Peter Anthony
261 French Street, New Brunswick, N. J.
- Hunt, William Edgar
99 Bedford Road, Pleasantville, N. Y.
- Hurwitz, Abe
22 Van Buren Street, Syracuse, N. Y.
- Isaacs, Irving Louis
1046 E 29 Street, Brooklyn, N. Y.
- Jacobson, Louis Malcolm
43 Sylvan Avenue, New Haven, Conn.
- Joffe, Abram Edward
350 Belmont Avenue, Paterson, N. J.
- Kaner, Paul
332 East 18 Street, New York, N. Y.
- Kantrowitz, Morris
1551 So. Boulevard, New York, N. Y.
- Karasick, Abraham
55 Cuba Place, Rochester, N. Y.
- Karmazin, Stanley
1355 E. 9 Street, Brooklyn, N. Y.
- Kasday, Moe
97-52 Corona Avenue, Corona, N. Y.
- Katz, Benjamin
1956-69 Street, Brooklyn, N. Y.
- Katzman, Louis
381 Grand Street, New York, N. Y.
- Kaufman, Howard
1129 Vyse Avenue, New York, N. Y.
- Kessler, Nathan
26 Fayette Street, Brooklyn, N. Y.
- Kirschstein, Nathan
100 Keap Street, Brooklyn, N. Y.
- Klappert, Samuel
790 Riverside Drive, New York, N. Y.
- Koch, Leo Bernard
219 East 28 Street, New York, N. Y.
- Koloditzky, Frances
261 Broome Street, New York, N. Y.
- Kornfeld, Abraham
1606 Park Place, Brooklyn, N. Y.
- Koslosky, Henry
366 Kingston Avenue, Brooklyn, N. Y.
- Koslow, Nathan Robert
1948 Prospect Avenue, New York, N. Y.
- Kossove, Sidney
1267-40 Street, Brooklyn, N. Y.
- Krell, Sara 73 So. 9 Street, Brooklyn, N. Y.
- Krichev, Barney
2160 Bath Avenue, Brooklyn, N. Y.
- Kroe, Andrew
835 Beck Street, New York, N. Y.
- Laites, Monio
491 Main Street, Ansonia, Conn.
- Lang, Albert Bela
767 East 156 Street, New York, N. Y.
- Langheinz, Louis E. G.
857 Elizabeth Avenue, Elizabeth, N. J.
- LaSala, Charles
782 Madison Street, Brooklyn, N. Y.
- Lasky, Reuben
59 Herman Street, Rochester, N. Y.
- Lauri, Michael A.
180 Hooker Place, Port Richmond, N. Y.
- Lazarowitz, Mae
382 Georgia Avenue, Brooklyn, N. Y.
- Leader, Louis M.
145 North Street, Bennington, Vt.
- Lebediger, Samuel
579 Wyona Street, Brooklyn, N. Y.
- Lee, Anderson F.
2324-8th Avenue, New York, N. Y.
- Lefkowitz, Sidney
109 So. 51 Street, Corona, N. Y.

- Lerner, Isidore
1723-77th Street, Brooklyn, N. Y.
- Levine, Marguerite A.
5002-16 Avenue, Brooklyn, N. Y.
- Levine, Sophie Box 82, Ashley Falls, Mass.
- Levitt, Solomon
180 Varet Street, Brooklyn, N. Y.
- Levy, Louis 512 Blum Street, Union Hill, N. J.
- Levy, Morris Jack
22 Prospect Park S. W. Brooklyn, N. Y.
- Liebowitz, David
280 So. 3 Street, Brooklyn, N. Y.
- Lipkin, Alexander
774 Park Avenue, W. New York, N. J.
- Lipschetz, Simon
185 Ferry Street, New Haven, Conn.
- Lipsett, Harold
549 W. 163 Street, New York City
- Loomis, George Meade
371 Park Street, Fulton, N. Y.
- Lopez de Victoria, Jose
965 Lexington Avenue, New York, N. Y.
- Lopresti, Frances
60 Cedar Avenue, Long Branch, N. J.
- Lupinacci, Joseph
327 East 113 Street, New York, N. Y.
- Lyons, James Kill Avenue, Butler, N. J.
- McGill, James F.
611 E. 83 Street, New York City
- Maline, John
130 Essex Street, Jersey City, N. J.
- Mandel, Jacob
41 Forsyth Street, New York, N. Y.
- Mandel, Nathan
400 E. Houston Street, New York, N. Y.
- Manheimer, Raymond B.
300 West 108 Street, New York, N. Y.
- Marcus, Sam
10 Meadow Street, Kingston, N. Y.
- Margolis, Joseph Samuel
1740 Weeks Avenue, New York, N. Y.
- Margulies, Harry Philip
26 Bergen Avenue, Jersey City, N. J.
- Martin, Naomi Amy
Westhampton Beach, N. Y.
- Mauro, Thomas Joseph
111 Park Ave., Elberon, N. J.
- Megibow, Joseph
501 Palisade Ave. W. New York, N. J.
- Miller, Henry M.
28 Ibis Street, Forest Hills, N. Y.
- Millman, Morris
5624-8th Avenue, Brooklyn, N. Y.
- Mininberg, Meyer
863 Beck Street, New York, N. Y.
- Mintzer, Morris Louis
177 Intervale Avenue, Burlington, Vt.
- Mistretta, Peter
1715-73 Street, Brooklyn, N. Y.
- Morrow, Hazel
95 Atlantic Street, Jersey City, N. J.
- Mouber, Isaac
59 East 118 Street, New York, N. Y.
- Murger, William
418 Georgia Avenue, Brooklyn, N. Y.
- Nava, Dominick
226 Carroll Street, Brooklyn, N. Y.
- Nelson, Isaac
Yarmouth, Nova Scotia, Can.
- Newberger, Max
568 So. 19 Street, Newark, N. J.
- Newman, Barnett
90 Grafton Street, Brooklyn, N. Y.
- Newman, Irving
369 Second Street, Brooklyn, N. Y.
- Nigrine, Nissim H.
1465 Fifth Avenue, New York, N. Y.
- Ochetell, Aaron
677 Beck Street, New York, N. Y.
- O'Connor, Joseph John
485 Monroe Avenue, Elizabeth, N. J.
- Oring, Joseph David
461 East 144 Street, New York, N. Y.
- Osterweil, Jacob
12 West 113 Street, New York, N. Y.
- Padwisocka, Louis K.
412 Hegeman Avenue, Brooklyn, N. Y.
- Pelletiria, Salvatore A.
629 Broadway, Brooklyn, N. Y.
- Perman, Morris
948 Union Avenue, New York, N. Y.
- Perrella, William Camilla
1903 Avenue U, Brooklyn, N. Y.
- Perrine, Peter W.
6408-15th Avenue, Brooklyn, N. Y.
- Peshkin, Gershon
33 Guilden Street, New Brunswick, N. J.
- Pierri, Esther
36-27 Academy Street, Astoria, N. Y.
- Pillitteri, Frances
1702 Lexington Avenue, New York City
- Pitts, William Milton
137 West 142 Street, New York, N. Y.
- Pollock, Lawrence
1640 University Avenue, New York, N. Y.
- Porgoman, Lena
205 St. Paul's Avenue, Jersey City, N. J.
- Posner, Julius
1209 West 6 Street, Sioux City, Iowa
- Prunier, Louis B. Lake Placid, N. Y.
- Rabinowitz, David
716 East 5 Street, New York, N. Y.
- Rabinowitz, Jacob
57 Shpoler Avenue, Corona, N. Y.
- Rabinowitz, Rubin Louis
118 Oak Street, Hazelton, Pa.
- Raphael, Israel
2363 Valentine Avenue, New York, N. Y.

- Reese, William L.
 262 E. Broadway, New York, N. Y.
 Reinstein, Leon
 97 Lee Avenue, Brooklyn, N. Y.
 Resner, Israel
 710 East 5 Street, New York, N. Y.
 Rheinstein, Harry Jacob
 163 E. 94 Street, Brooklyn, N. Y.
 Richards, James Lobb Port Jervis, N. Y.
 Richman, Louis
 187 Grafton Street, Brooklyn, N. Y.
 Rimer, Max
 320 East 91 Street, New York, N. Y.
 Rippner, Philip
 18 Lawrence Street, So. Norwalk, Conn.
 Risberg, Leo Joseph
 118 West 109 Street, New York, N. Y.
 Rodman, Morris
 43 Grafton Street, Brooklyn, N. Y.
 Roman, Joseph George
 15 W. Henry Street, Stamford, Conn.
 Rosenberg, Manuel Morton
 314 Wilkins Street, Rochester, N. Y.
 Rosenblat, Samuel Jack
 88 East 111 Street, New York, N. Y.
 Rosenblum, Ben
 348 Avenue C, Bayonne, N. J.
 Rosenfeld, William
 6 West 98 Street, New York, N. Y.
 Rosenstein, Hyman
 1153-41 Street, Brooklyn, N. Y.
 Royal, Solomon
 386 Hillside Avenue, Jamaica, N. Y.
 Sacco, Leonard G.
 123 So. 7 Avenue, Long Branch, N. J.
 Salem, Louis H.
 3705-64 Street, Woodside, N. Y.
 Salutsky, Isidore
 70 Wilson Street, Brooklyn, N. Y.
 Sasse, Henry Alois
 315 East 58 Street, New York, N. Y.
 Schine, Samuel
 697 Pembroke Street, Bridgeport, Conn.
 Schneider, William Edward
 830 Saratoga Avenue, Brooklyn, N. Y.
 Schwartz, Benjamin
 217 Bristol Street, Brooklyn, N. Y.
 Schwartz, Jack
 329 Graham Avenue, Brooklyn, N. Y.
 Schwartz, Paul
 16 Wayne Street, Middle Village, N. Y.
 Segal, Norman
 932 Kelly Street, New York, N. Y.
 Seider, Solomon
 86 West 183 Street, New York, N. Y.
 Seiler, Albert
 137-7th Avenue, Brooklyn, N. Y.
 Sepkaski, Paul
 65 Canal Street, Ansonia, Conn.
 Sewell, Milton Dulany
 117 Palisade Avenue, Jersey City, N. J.
 Shamus, Leon
 509 E. Raynor Avenue, Syracuse, N. Y.
 Shenit, Harry
 347 Bradford Street, Brooklyn, N. Y.
 Sherman, Irving
 318 East 100 Street, New York, N. Y.
 Shulman, Jack
 132 William Street, Perth Amboy, N. J.
 Siegle, Edward
 63 Forsyth Street, New York, N. Y.
 Siegle, Irving
 520 Broadway, Bayonne, N. J.
 Silberquit, Paul
 217 Pennsylvania Avenue, Brooklyn, N. Y.
 Silver, Samuel Robert
 2077-60 Street, Brooklyn, N. Y.
 Silverman, Jack
 177 East 100 Street, New York, N. Y.
 Silverman, Jacob
 258 Palisade Avenue, Jersey City, N. J.
 Simrin, Leonard Greenfield, N. Y.
 Sinakin, Richard Max
 404 Palisade Avenue, Jersey City, N. J.
 Singer, Abraham
 1424 Bryant Avenue, New York, N. Y.
 Sirkus, John
 640 Blake Avenue, Brooklyn, N. Y.
 Smith, Irving Hugh
 9 Morningside Avenue, Montclair, N. J.
 Smith, Lawrence
 2072-61st Street, Brooklyn, N. Y.
 Smith, Robert Reuben
 2072-61st Street, Brooklyn, N. Y.
 Sobell, Martin L.
 729 Kelly Street, New York, N. Y.
 Soriano, Charles
 51 Thompson Street, Raritan, N. J.
 Sowersby, Winford E.
 66 West 1st Street, Mt. Vernon, N. Y.
 Spector, George
 118 So. 11 Avenue, Maywood, Ill.
 Spellman, Glenn J.
 2537 Valentine Avenue, New York, N. Y.
 Spevack, Samuel William
 369 New Street, Perth Amboy, N. J.
 Stahl, Charles William
 204 Delancey Street, New York, N. Y.
 Steele, Nathan
 483 East 170 Street, New York, N. Y.
 Steinfeld, William M.
 81 Avenue C, New York, N. Y.
 Stelmah, Samuel
 1687 Vyse Avenue, New York, N. Y.
 Stenger, Harry C.
 1862 Grove Street, Brooklyn, N. Y.
 Stern, Morris
 336 Prospect Street, Perth Amboy, N. J.

Stitelman, Hyman
1712 Bath Avenue, Brooklyn, N. Y.

Stockvis, George G.
146 East 74 Street, New York, N. Y.

Strauss, Joseph
130 West 195 Street, New York, N. Y.

Sudnow, Isidore
24 East 99 Street, New York, N. Y.

Sukenik, Harry
1848 Monroe Avenue, New York, N. Y.

Tammaro, Joseph Irving
2 Rockledge Avenue, Ossining, N. Y.

Tanklefsky, Arthur
1219 Gilbert Place, New York, N. Y.

Taubert, Charles Frederick
604 No. Locust Street, Hazelton, Pa.

Teitelbaum, Bertha
195 Broad Street, Stapleton, N. Y.

Thorner, Isidor
90 Morton Street, Brooklyn, N. Y.

Tittler, Murray
2142 Atlantic Avenue, Brooklyn, N. Y.

Tornow, Abraham M.
110 Orient Avenue, Jersey City, N. J.

Trapani, Salvator
8657 Bay 16th Street, Brooklyn, N. Y.

Tulchinsky, Moses Bernard
205 Bay 29 Street, Brooklyn, N. Y.

Tuvim, Abraham A.
7 West 112 Street, New York, N. Y.

Valenti, James Joseph
551-2nd Avenue, New York, N. Y.

Venickoff, Solomon
911 Longwood Avenue, New York, N. Y.

Volkovitsky, Benzion K.
364 Palisade Avenue, Jersey City, N. J.

Waldinger, Leo
150 Keap Street, Brooklyn, N. Y.

Waldman, Sidney
34 No. Grant Street, Wilkes-Barre, Pa.

Wandruff, Benjamin
2076 Bryant Avenue, New York, N. Y.

Waxman, Isaac
112 Goerck Street, New York, N. Y.

Weiswasser, David
1457 Eastern P'kway, Brooklyn, N. Y.

Weltman, Louise
486 East 138 Street, New York, N. Y.

Wexler, David
614 East 11 Street, New York, N. Y.

Wiener, Max
35 Clinton Street, Paterson, N. J.

Wilensky, Morris
52¹/₂ Stephen Street, New Haven, Conn.

Winer, Russell
442 East 9 Street, New York, N. Y.

Wininger, Samuel
2226 Adams Place, New York, N. Y.

Wolf, David
860 Whitlock Avenue, New York, N. Y.

Young, William
324 Snediker Avenue, Brooklyn, N. Y.

Youngstein, Elias
403 Manhattan Avenue, New York, N. Y.

Zalowitz, Morris Daniel
86 Marshall Street, Elizabeth, N. J.

Zeichner, Isadore
226 Adam Street, Hoboken, N. J.

Zelnick, Isidore
321-12 Street, New York, N. Y.

Zimmerman, William
108 West 90 Street, New York, N. Y.

Zutler, Elias
112 West 61 Street, New York, N. Y.

Zwillich, Ignatz
801 Freeman Street, New York, N. Y.

(319)

FIRST YEAR COLLEGE CLASS

Acierno, Claude
153 Lake Street, Brooklyn, N. Y.

Ackerman, Leo
915 East 15 Street, Brooklyn, N. Y.

Adler, Max Abraham
602 East 11 Street, New York, N. Y.

Allen, Abraham
860 East 161 Street, New York, N. Y.

Alpert, Jacob Joseph
992 Trinity Avenue, New York, N. Y.

Amtman, Rudolph
1450 Clay Avenue, New York, N. Y.

Averbach, Abraham Irwin
1741 Sterling Place, Brooklyn, N. Y.

Baer, Philip
1575 Park Place, Brooklyn, N. Y.

Balotin, Joel
Ellenville, N. Y.

Becker, Abraham
836 New Lots Avenue, Brooklyn, N. Y.

Berinsky, Abraham
1531 Sputhern Blvd., New York, N. Y.

Berler, Abraham
546 New Jersey Avenue, Brooklyn, N. Y.

Berlin, Henry
338 Broadway, Saratoga Springs, N. Y.

Berman, Louis
33 Avenue A, New York, N. Y.

Bernstein, Nathan
2532 Elmore Place, Brooklyn, N. Y.

Bernstein, Phillip
766 Ninth Avenue, New York, N. Y.

Bezahler, Charles
255 Seventh Street, New York, N. Y.

Bianco, William
415 So. 5th Street, Brooklyn, N. Y.

Bikofsky, Louis
313 East 170 Street, New York, N. Y.

Bindersky, Morris Louis
1463 St. Marks Avenue, Brooklyn, N. Y.

Blank, Samuel
234 East 3rd Street, New York, N. Y.

- Blatman, Leo
 221 E. Broadway, New York, N. Y.
 Blaunstein, Harry
 786 East 165 Street, New York, N. Y.
 Bloom, Morris
 96 Bay 17th Street, Brooklyn, N. Y.
 Bogopolsky, Jacob
 225 East 110 Street, New York, N. Y.
 Bonaccolto, Ada
 322 Second Avenue, New York, N. Y.
 Bookchin, Benjamin
 23 Harvard Court, Brighton Beach, N. Y.
 Botfeld, Louis
 32 Stanwix Street, Brooklyn, N. Y.
 Bousel, Morris
 1443 Washington Avenue, New York, N. Y.
 Brodsky, Samuel
 64 East 103 Street, New York, N. Y.
 Brook, Max
 251 Michigan Avenue, Mobile, Ala.
 Brotman, Sam
 147 Stanton Street, New York, N. Y.
 Cantor, Jacob Alvin
 340 Pleasant Street, Gardner, Mass.
 Cernik, Joseph John
 311 East 73 Street, New York, N. Y.
 Chalian, Alexander
 1468 St. Nicholas Avenue, New York, N. Y.
 Cohen, Harry Lewis
 611½ Calder Street, Harrisburg, Pa.
 Cohen, Michael
 602 Pennsylvania Ave., Brooklyn, N. Y.
 Columbus, Leo
 307 West 71 Street, New York, N. Y.
 Cona, Josephine
 182 So. Center Street, Orange, N. J.
 Cooper, Israel
 3885 Bedford Avenue, Brooklyn, N. Y.
 Cooper, Julius Sussman
 72 Spring Street, Norwich, Conn.
 Czmor, Bela Michael
 236 Bragaw Street, Long Island City, N. Y.
 DeCicco, Anthony Charles
 10 Hall Street, Brooklyn, N. Y.
 Deitz, Martin David
 37 So. Main Street, Norwalk, Conn.
 Devoe, Floyd
 43 Ellis Place, Ossining, N. Y.
 Diamond, Rudolph
 2 East 108 Street, New York, N. Y.
 Dickson, Martin
 262 Seigel Street, Brooklyn, N. Y.
 Dinitz, Charles
 96 McKibben Street, Brooklyn, N. Y.
 Donenhirsh, Louis
 74-76 Chrystie Street, New York, N. Y.
 Dreizin, Gersh Kuselev Abramov
 1704 Mermaid Avenue, Brooklyn, N. Y.
 Durst, Samuel Isidore
 264-2nd Street, New York, N. Y.
 Edelman, Benjamin
 1084 Gerard Avenue, New York, N. Y.
 Eichenbaum, Samuel
 235 East 103 Street, New York, N. Y.
 Elkind, Joseph Benjamin
 15 Overlook Terrace, Yonkers, N. Y.
 Etkins, Abraham
 2161 Douglass Street, Brooklyn, N. Y.
 Fass, Morris
 51 East 109 Street, New York, N. Y.
 Fenster, Moe
 104 Lenox Avenue, New York, N. Y.
 Fiertel, Israel David
 151 Suffolk Street, New York, N. Y.
 Fishman, Fannie
 427 Kingston Avenue, Brooklyn, N. Y.
 Frager, Joseph Saul
 35 Johnston Street, Newburgh, N. Y.
 Frankel, Ezra
 140 Stanton Street, New York, N. Y.
 Friedman, Morris
 50 East 100 Street, New York, N. Y.
 Gellis, Mark Romeo
 334 East 15 Street, New York, N. Y.
 Gilbert, Charles
 217 Madison Street, New York, N. Y.
 Ginnis, Louis
 1849-66th Street, Brooklyn, N. Y.
 Glassman, Louis
 101 Straight Street, Paterson, N. J.
 Goldenberg, Harry
 404 Georgia Avenue, Brooklyn, N. Y.
 Goldfarb, Harold
 1011 Belmont Avenue, Brooklyn, N. Y.
 Goldfield, Max
 270 Windsor Avenue, Hartford, Conn.
 Goldman, Hirsch Jacob
 200 Vernon Avenue, Brooklyn, N. Y.
 Goldman, Pincus
 24 East 99th Street, New York, N. Y.
 Goldstein, Meyer
 292 Hinsdale Street, Brooklyn, N. Y.
 Goldwasser, Abraham
 555 Bushwick Avenue, Brooklyn, N. Y.
 Goodwich, Paul
 32 Kingsbury Street, Waterbury, Conn.
 Gordon, William
 1366 Brook Avenue, New York, N. Y.
 Gorga, Alfonso
 281 Hudson Avenue, Brooklyn, N. Y.
 Gottheil, David Isidore
 1851 Bathgate Avenue, New York, N. Y.
 Greenberg, Samuel
 719 Sackman Street, Brooklyn, N. Y.
 Grobifker, William
 1548 East 4 Street, Brooklyn, N. Y.
 Grogin, James Isidor
 1031-54th Street, Brooklyn, N. Y.
 Gullo, Nancy
 148 Hester Street, New York, N. Y.

- Haase, Milton
2123 Tiebout Avenue, New York, N. Y.
- Hacker, Louis
709 East 5 Street, New York, N. Y.
- Haiken, Benjamin
822 Beck Street, Brooklyn, N. Y.
- Hammecker, Morton Martin
1500 W. Genesee Street, Syracuse, N. Y.
- Heller, Aaron
1766 Bergen Street, Brooklyn, N. Y.
- Hertzoff, Max
1533 Morris Avenue, New York, N. Y.
- Hillinger, Morris William
2922 La Salle Avenue, Los Angeles, Cal.
- Honiberg, Aaron David
254 Windsor Avenue, Hartford, Conn.
- Howard, Charles Francis
39 Dewey Avenue, Huntington, N. Y.
- Hurvitz, Mrs. Jennie
797 Crotona Park, New York, N. Y.
- Irvin, Vera
18 West 138 Street, New York, N. Y.
- Isaacs, Melville
53 West 114 Street, New York, N. Y.
- Isaacson, Harry
2141 Homecrest Avenue, Brooklyn, N. Y.
- Israel, Max
120 East 110 Street, New York, N. Y.
- Jospey, Milton
17 Beach 37 Street, Edgemere, N. Y.
- Kanfer, Daniel
140 Wilson Street, Brooklyn, N. Y.
- Kaplan, Jonah
691 Van Sicklen Avenue, Brooklyn, N. Y.
- Kaplan, Morris
1420-43 Street, Brooklyn, N. Y.
- Kaplan, Robert
628 Vermont Street, Brooklyn, N. Y.
- Karp, Solomon
243 Cherry Street, New York, N. Y.
- Karpf, Bernard
1509 Charlotte Street, New York, N. Y.
- Katz, Emanuel
419 East Houston Street, New York, N. Y.
- Katz, Pearl Lloyd
638 Ninth Street, Milwaukee, Wis.
- Kaufman, Charles
569 Saratoga Avenue, Brooklyn, N. Y.
- Keegan, James John
Ferndale, N. Y.
- Kessler, Harry
2179 Washington Avenue, New York, N. Y.
- Kessler, Selig Ezra
1715 Lexington Avenue, New York, N. Y.
- Kirschner, Charles Israel
159 So. 4th Street, Brooklyn, N. Y.
- Klein, Isidore
433 East 138 Street, New York, N. Y.
- Klein, Joseph
720 East 9 Street, New York, N. Y.
- Koch, Karl
219 East 28 Street, New York, N. Y.
- Kolber, Samuel W.
252 Driggs Avenue, Brooklyn, N. Y.
- Koslowsky, Louis Oscar
58 Lee Avenue, Brooklyn, N. Y.
- Kramer, Paul
1326 Washington Avenue, New York, N. Y.
- Kreisel, Jacob
910 DeKalb Avenue, Brooklyn, N. Y.
- Kritman, Azril
334 East 9 Street, New York, N. Y.
- Krouse, Sidney Morris
1011 Simpson Street, New York, N. Y.
- Krulis, Albert Joseph
570 Grand Avenue, Astoria, N. Y.
- Kvares, Daniel
360 East 121 Street, New York, N. Y.
- Langberg, Isidore
357 So. 5 Street, Brooklyn, N. Y.
- Lapidus, George
2075-63rd Street, Brooklyn, N. Y.
- LaRocca, Michael
65½ Skillman Avenue, Brooklyn, N. Y.
- Lehrer, Arthur Martin
1369 East 29 Street, Brooklyn, N. Y.
- Leibson, Samuel
552 Vermont Street, Brooklyn, N. Y. %
Slutzky.
- Leikin, Samuel
73 Conselyea Street, Brooklyn, N. Y.
- Lemberg, Benjamin
159 East 52 Street, New York, N. Y.
- Lercher, Juda
272 East 7 Street, New York, N. Y.
- Leschinsky, Morris
50 Columbia Street, New York, N. Y.
- Levine, Benjamin
364 West 36 Street, New York, N. Y.
- Levine, Irving
62 Beacon Street, Newburgh, N. Y.
- Levinsky, Charles
995 Simpson Street, New York, N. Y.
- Levinsohn, Arthur
26 So. Bridge Street, Poughkeepsie, N. Y.
- Levy, Artrelle
2329-7th Avenue, New York, N. Y.
- Lewis, Edgar
2057-78th Street, Brooklyn, N. Y.
- Lewitus, Victor
3459 DeKalb Avenue, New York, N. Y.
- Lippmann, Max
1222 Boynton Avenue, New York, N. Y.
- Liss, Julius
139 Eldridge Street, New York, N. Y.
- Lovich, Boris
1121 Monis Avenue, New York, N. Y.
- Lovish, Sidney
227 Hart Street, Brooklyn, N. Y.

- Lurie, Abraham
1950 Bryant Avenue, New York, N. Y.
- McBride, William E.
100 Hartson Street, Syracuse, N. Y.
- MacNear, Raymond
22 Fullerton Avenue, Newburgh, N. Y.
- Maddock, Catherine Margaret
College of Mt. St. Vincent, Mt. St. Vincent,
N. Y.
- Malvin, Jack
64 East 112 Street, New York, N. Y.
- Mandell, Henry
191 Moore Street, Barberton, Ohio
- Marcus, Louis
169 East 102 Street, New York, N. Y.
- Markowitz, Max
222 East 124 Street, New York, N. Y.
- Mehr, Joseph
77 Division Avenue, Brooklyn, N. Y.
- Memmoli, Riccardo Eugenio
211 Avenue A, New York, N. Y.
- Miceli, Anthony William
784 Bushwick Avenue, Brooklyn, N. Y.
- Milea, Francis S.
196 President Street, Brooklyn, N. Y.
- Miller, Henry
Fleischmanns, N. Y.
- Miller, Joseph
117 East 109 Street, New York, N. Y.
- Miller, Kenneth Scott
23 Dale Avenue, Ossining, N. Y.
- Mintzer, Marcus
223 East 4 Street, New York, N. Y.
- Nadel, Abraham
265 Rochester Avenue, Brooklyn, N. Y.
- Nadelshaft, Isaac
827 Kelly Street, New York, N. Y.
- Nadler, Charles Jack
108 Gerry Street, Brooklyn, N. Y.
- Nash, Henry Bergen
34 Fairview Avenue, Walden, N. Y.
- Nielsen, Laurence R.
235a Monitor Street, Brooklyn, N. Y.
- Nussbaum, Henrietta
211 E. Broadway, New York, N. Y.
- Okrent, Frank
212 Opal Court, Brighton Beach, N. Y.
- Okst, George
Kings Park, New York, N. Y.
- O'Neill, Bernard
344 Dennison P'kway, Corning, N. Y.
- Palange, Edward Arthur
193 Bleeker Street, New York, N. Y.
- Panetta, Viola Diana
148 Hester Street, New York, N. Y.
- Parker, John Henry
Warrensburg, N. Y.
- Penner, Samuel
1769 Prospect Place, Brooklyn, N. Y.
- Perlmutter, Jacob
390 East 4 Street, New York, N. Y.
- Pierson, Sanford Ralph
28 So. Main Street, Liberty, N. Y.
- Plotkin, Louis
781-44 Street, Brooklyn, N. Y.
- Polizzi, Salvatore
241 East 108 Street, New York, N. Y.
- Pollack, Sam
310 East 4 Street, New York, N. Y.
- Polley, Louis Bernard
340 Pleasant Street, Gardner, Mass.
- Raia, Emanuel
1396 Herkimer Street, Brooklyn, N. Y.
- Reife, Leo M.
1023 Hopkinson Avenue, Brooklyn, N. Y.
- Reisman, Saul
1341 Southern Blvd., New York, N. Y.
- Reiter, Morris
156 Avenue C, New York, N. Y.
- Richards, Emilio D.
6 Odell Avenue, White Plains, N. Y.
- Rieger, Paul
1358 Brook Avenue, New York, N. Y.
- Rievman, Homer
2259-63rd Street, Brooklyn, N. Y.
- Rifkin, Herman Isadore
1652 Prospect Place, Brooklyn, N. Y.
- Rinzler, Philip
1243-55th Street, Brooklyn, N. Y.
- Robinson, Milton
981 East 14 Street, Brooklyn, N. Y.
- Rosati, Albert Benedict
9125-96th Street, Woodhaven, N. Y.
- Rosati, John
9125-96th Street, Woodhaven, N. Y.
- Rose, Kenneth William
39 So. 12 Street, Mt. Vernon, N. Y.
- Rosenberg, Benjamin
858 Beck Street, New York, N. Y.
- Rosenblatt, Morris
1354 Brook Avenue, New York, N. Y.
- Rosenblum, Max
1976 Second Avenue, New York, N. Y.
- Rosenfeld, Marcus
652 Willoughby Avenue, Brooklyn, N. Y.
- Rosenstock, Pearl
48 Canal Street, Ellenville, N. Y.
- Rosenthal, Irving
299 So. 5 Street, Brooklyn, N. Y.
- Rothman, Israel
366 Jerome Street, Brooklyn, N. Y.
- Rubens, Nathan
108 Water Street, Stapleton, S. I.
- Rubenstein, Sidney
505 Essex Street, Brooklyn, N. Y.
- Rubin, Fannie
2140 Clinton Avenue, New York, N. Y.
- Rubin, Israel
324 Georgia Avenue, Brooklyn, N. Y.
- Sabella, Vincent J.
6023-17th Avenue, Brooklyn, N. Y.
- Sacco, Umberto V.
95 Olive Street, New Haven, Conn.

- Safer, Herman
184 Lee Avenue, Brooklyn, N. Y.
- Salitan, Ralph
350 West 71 Street, New York, N. Y.
- Samlowitz, Max
89 Glenmore Avenue, Brooklyn, N. Y.
- Sanders, Herbert
7426-7th Avenue, Brooklyn, N. Y.
- Satz, Lola 16 East 106 Street, New York, N. Y.
- Schaefer, Frank A.
673 Summit Avenue, Jersey City, N. J.
- Scherer, Ralph
73 Avenue C, New York, N. Y.
- Schmelzer, Henry
3803 Laurel Avenue, Seagate, N. Y.
- Schneider, David
70 East 109 Street, New York, N. Y.
- Schwartz, Julius
81 West 113 Street, New York, N. Y.
- Schwarz, Charles
366 Montgomery Street, Brooklyn, N. Y.
- Serote, Nathan
68 Garden Street, Poughkeepsie, N. Y.
- Setaro, Rose Ann
2839-4th Avenue, Astoria, N. Y.
- Shapiro, Arthur
312 East 8 Street, New York, N. Y.
- Shapiro, Irving Harold
179 Wood Avenue, Bridgeport, Conn.
- Sherman, Louis Joseph
78 Barrett Street, Brooklyn, N. Y.
- Shiffman, Samuel
39 Essex Street, New York, N. Y.
- Siegel, Samuel
307a Berriman Street, Brooklyn, N. Y.
- Sileo, Mario
1525-75th Street, Brooklyn, N. Y.
- Silverstein, Morris
77 Keap Street, Brooklyn, N. Y.
- Sirota, Benjamin
1419 Pitkin Avenue, Brooklyn, N. Y.
- Sitar, Joseph John
132 Spring Street, Union City, Conn.
- Small, John Clement
16 Day Street, Portland, Me.
- Smith, Edward Joseph
1758 Topping Avenue, New York, N. Y.
- Smith, George
2072-61st Street, Brooklyn, N. Y.
- Solomon, Bernard
662 New Jersey Avenue, Brooklyn, N. Y.
- Soren, Charles Harry
2007 Daly Avenue, New York, N. Y.
- Sorin, Mae
2166-8th Avenue, New York, N. Y.
- Spage, Robert
55-47th Street, Corona, N. Y.
- Speller, Clarence William
22 Wyandotte Avenue, Highland Falls, N. Y.
- Spiegelglass, Samuel
1099 Union Avenue, New York, N. Y.
- Steinberg, Blanche C.
661 East 170 Street, New York, N. Y.
- Stern, William
1686 Park Place, Brooklyn, N. Y.
- Stillerman, Harry Louis
252 Atkins Avenue, Brooklyn, N. Y.
- Stout, William Calvin
71 Cambridge Street, Valley Stream, N. Y.
- Stumkoff, Harry
375 East 29 Street, Brooklyn, N. Y.
- Tanenbaum, Hyman A.
52 Barrett Street, Brooklyn, N. Y.
- Tartakowsky, Louis
1152 Simpson Street, New York, N. Y.
- Tekowsky, Abraham
1725-51st Street, Brooklyn, N. Y.
- Tracy, Thomas Joseph
33 Maple Place, Port Chester, N. Y.
- Troub, Kopel
86 Rivington Street, New York, N. Y.
- Tucker, Louis
2136 Crotona P'kway, New York, N. Y.
- Tucker, Max
416 East 52 Street, New York, N. Y.
- Tuman, Robert
5223 Church Avenue, Brooklyn, N. Y.
- Turk, Jacob Bernard
281 New Lots Avenue, Brooklyn, N. Y.
- Weinstein, Julius
2313 Mermaid Avenue, Brooklyn, N. Y.
- Weintraub, Sol
221 So. 3 Street, Brooklyn, N. Y.
- Westerman, Abraham
416 East 120 Street, New York, N. Y.
- Wiener, Edward Martin
1120-56th Street, Brooklyn, N. Y.
- Wiener, Meyer
1280a Sheridan Avenue, New York, N. Y.
- Wiskin, Morris
522 E. 13 Street, New York City
- Wolfowitz, Isidore
347 East 17 Street, New York, N. Y.
- Woodley, Edna Catherine
Col. of Mr. St. Vincent, Mt. St. Vincent, N. Y.
- Yablonski, Stanley Arthur
174 Clinton Avenue, Maspeth, N. Y.
- Yakoubian, Leon
5424-18th Avenue, Brooklyn, N. Y.
- Zablocki, Henry
93 So. 10 Street, Brooklyn, N. Y.
- Zahn, Joseph Bernard
1466 Brook Avenue, New York, N. Y.
- Zaugg, Stanley Britain
2502 Chamberlain Ave., Chattanooga, Tenn.
- Zucker, Philip
135 Smalley Street, New Britain, Conn.

EVENING COURSES

Alexander, Thea
205 West 57 Street, New York, N. Y.

Andrade, Oscar
Broad and Edsall Avenue, Morsemere, N. J.

Arzomanian, Samuel
218 St. John's Place, Brooklyn, N. Y.

Ayers, Howardine
16 East 98 Street, New York, N. Y.

Baldwin, Donald C.
78 Bedford Street, New York, N. Y.

Barber, Lester A.
617 West 115 Street, New York City

Baskin, Mae
125 Division Avenue, Brooklyn, N. Y.

Batavin, Michael
1 Arden Street, New York, N. Y.

Bianchi, John V.
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332 East 144 Street, New York, N. Y.

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MacDonald, Katherine
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1410 West 8 Street, Brooklyn, N. Y.
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156 E. 45 Street, New York, N. Y.
- Rawson, Charles
946 St. Mark's Avenue, Brooklyn, N. Y.
- Richards, Paul S. 18 High Street, Butler, N. J.
- Rodman, Morris
43 Grafton Street, Brooklyn, N. Y.
- Rosenberg, Emanuel
126 Cannon Street, New York, N. Y.
- Saymon, Joseph
141 East 26 Street, New York, N. Y.
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1750 East 7 Street, Brooklyn, N. Y.
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910 Seventh Avenue, New York, N. Y.
- Scharf, Cecile Marion
318 West 56 Street, New York, N. Y.
- Scheinman, Isidore
65 Mangin Street, New York, N. Y.
- Schochet, Abraham Henry
9 East 112 Street, New York, N. Y.
- Schrank, John K.
373 Webster Avenue, Jersey City, N. J.
- Shulman, Jack
132 William Street, Perth Amboy, N. J.
- Sigelman, Edward Bernard
63 West 180 Street, New York, N. Y.
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- Smith, Lillian R.
26 Lafayette Street, Brooklyn, N. Y.
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Sept. 10 - 21

ACADEMIC CALENDAR

1926

- May 24-June 5. Registration for second, third and fourth year candidates.
June 7-Aug. 7. Summer Laboratory Courses.
Aug. 16-Sept. 4. Summer Quiz Courses.
Sept. 1-Sept. 8. Registration for first year candidates.
Sept. 7-9. Supplementary Examinations.
20. Monday, Ninety-seventh Session begins. Second, Third and Fourth Year Classes assemble 9 a. m.
21. Tuesday, First Year Classes assemble 9 a. m.
Oct. 4. Monday, Evening Special Course Classes assemble 7:00 p. m.
Nov. 2. Tuesday, Election Day, Holiday.
25. Thursday, to November 27, Saturday, inclusive, Thanksgiving Holidays.
Dec. 20. Monday, to

1927

- Jan. 2. Sunday, inclusive, Christmas Holidays.
3. Monday, Sessions resumed.
10-15. Mid-Year Examinations.
Feb. 12. Saturday, Lincoln's Birthday, Holiday.
22. Tuesday, Washington's Birthday, Holiday.
Apr. 11. Monday, Last Day for applying for final examinations.
Apr. 29. Friday, Evening Courses close.
May. 7-16. Final College Course Examinations.
16-19. Final University Course Examinations.
25. Wednesday, First Year Class Exercises (Alumni Day).
26. Thursday, College Commencement.
June 1. Wednesday, University Commencement.

SCHEDULE OF EXAMINATIONS

Supplementary Examinations

FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1926

- July 16. Friday, 2-5, Botany Laboratory.
Sept. 7. Tuesday, 9-12, Pharmacy and Latin.
Tuesday, 2-5, Dispensing Pharmacy.
8. Wednesday, 9-12, Botany, Physiology, Posology.
Wednesday, 2-5, Chemistry.
9. Thursday, 9-12, Analytical Chemistry.
Thursday, 2-5, Physics.

SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- July 16. Friday, 2-5, Macro- and Micro-Pharmacognosy.
Sept. 7. Tuesday, 9-12, Pharmacy, Pharmaceutical Jurisprudence.
Tuesday, 2-5, Dispensing Pharmacy, Commercial Pharmacy.

- Sept. 8. Wednesday, 9-12, Materia Medica, Toxicology.
 Wednesday, 2-5, Pharmaceutical Chemistry.
 9. Thursday, 9-12, Analytical Chemistry.
 Thursday, 2-5, Organic Chemistry.

THIRD YEAR UNIVERSITY CLASS

- Sept. 7. Tuesday, 9-12, Department of Pharmacy.
 8. Wednesday, 9-12, Department of Materia Medica.
 9. Thursday, 9-12, Analytical Chemistry.
 Thursday, 2-5, Industrial Chemistry.

Mid-Year Examinations

1927 FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

- Jan. 11. Tuesday, 9-1, Botany, Physiology.
 Tuesday, 2-5, Posology, Botany Laboratory.
 13. Thursday, 9-12 Pharmacy.
 Thursday, 2-5, Dispensing Pharmacy.
 15. Saturday, 9-1, Physics, Chemistry.
 Saturday, 2-5, Analytical Chemistry.

SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- Jan. 10. Monday, 9-12, Materia Medica, Toxicology.
 Monday, 2-5, Macroscopic and Microscopic Pharmacognosy.
 12. Wednesday, 9-12, Analytical Chemistry.
 Wednesday, 2-5, Chemistry.
 14. Friday, 9-12, Pharmacy.
 Friday, 1-3, Dispensing Pharmacy.
 Friday, 3-5, Commercial Pharmacy.

Final Examinations

FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1927

- May 7. Saturday, 2-5, Dispensing Pharmacy.
 11. Tuesday, 9-12, Botany, Physiology.
 Tuesday, 2-5, Analytical Chemistry.
 13. Thursday, 9-12, Chemistry.
 Thursday, 2-5, Pharmacy, Pharmaceutical Latin.
 15. Saturday, 9-12, Botany Laboratory, Posology.
 Saturday, 2-5, Physics.

SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- May 9. Monday, 9-12, Materia Medica, Toxicology.
 Monday { 2-3.30, Pharmaceutical Jurisprudence.
 3.30-5.30 Commercial Pharmacy.
 11. Wednesday, 9-12, Dispensing Pharmacy.
 Wednesday, 2-5, Macroscopic and Microscopic Pharmacognosy.

- May 13. Friday, 9-12, Analytical Chemistry.
Friday, 2-5, Organic Chemistry.
16. Monday, 9-12, Pharmacy.

UNIVERSITY CLASSES

- May 12. Thursday, 9-12, Freshman Chemistry.
13. Friday, 2-5, Sophomore Chemistry.
14. Saturday, 2-5, Freshman Physics.
17. Tuesday, 9-12, Junior and Senior Pharmacy.
Tuesday, 1-4, Junior and Senior Analytical Chemistry.
18. Wednesday, 1-4, Junior Industrial Chemistry; Senior Food Analysis
and Toxicology.
19. Thursday, 1-4, Sophomore, Junior and Senior Dispensing Pharmacy.
20. Friday, 9-12, Senior Biological Chemistry.





Columbia University Bulletin of Information

COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

ANNOUNCEMENT

1927-1928

NEW YORK

1927

Columbia University Bulletin of Information

Twenty-Seventh Series, No. 48

August 27, 1927

Issued weekly at Columbia University, Morningside Heights, New York, N. Y. Entered as second-class matter August 10, 1918, at the Post Office at New York, N. Y., under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

1. Annual Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.
3. Other publications of the University, including the annual Directory of Officers and Students, are issued as Bulletins.

C. P. 20,000—1927

For special or more detailed information than is given in this announcement, applicants are requested to address the Registrar of the College, 115 West Sixty-eighth Street. His office hours are as follows: From September 1, 1927 to May 1, 1928, daily except Saturdays, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a. m. to 4 p. m.; Saturdays, 9:30 a. m. to 12 m.



COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

113-119 WEST SIXTY-EIGHTH STREET



Columbia University

Bulletin of Information

COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

ANNOUNCEMENT

1927-1928

NEW YORK

1927

This College reserves the right to make such changes in the curriculum, schedule, calendar and regulations appearing in this announcement as circumstances may require.

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1927

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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	9	10	11	12	13	14	15		8	9	10	11	12	13	14		4	5	6	7	8	9	10
	16	17	18	19	20	21	22		15	16	17	18	19	20	21		11	12	13	14	15	16	17
	23	24	25	26	27	28	29		22	23	24	25	26	27	28		18	19	20	21	22	23	24
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1928

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1929

Jan.	..	..	1	2	3	4	5	May	..	..	1	2	3	4		Sept.	1	2	3	4	5	6	7
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Feb.	..	..	..	..	..	1	2	June	..	..	..	..	..	..	1	Oct.	..	..	1	2	3	4	5
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	10	11	12	13	14	15	16		2	3	4	5	6	7	8		13	14	15	16	17	18	19
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	24	25	26	27	28	..	..		16	17	18	19	20	21	22		27	28	29	30	31	..	..
March	..	..	..	..	..	1	2	July	23	24	25	26	27	28	29	Nov.	..	..	..	..	1	2	3
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	28	29	30	..	..	..	..		18	19	20	21	22	23	24		29	30	31	..	..	..	..

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NICHOLAS MURRAY BUTLER, LL.D. (Cantab.), D.Litt. (Oxon.), Hon.D. (Paris)	<i>President</i>
HENRY H. RUSBY, M.D., Ph.M.....	<i>Dean</i>
*GEORGE C. DIEKMAN, Ph.G., M.D.....	<i>Associate Dean and Secretary and Elected Member of the University Council</i>
HENRY V. ARNY, Ph.M., Ph.D., F.C.S.....	<i>Acting Associate Dean</i>
CURT P. WIMMER, A.M., Ph.M., Phar.D.....	<i>Acting Secretary of the Faculty</i>
VIRGIL COBLENTZ, A.M., Ph.D., Phar.M., F.C.S.....	<i>Professor Emeritus of Chemistry</i>
HENRY H. RUSBY, M.D., Ph.M.....	<i>Professor of Materia Medica</i>
*GEORGE C. DIEKMAN, Ph.G., M.D.....	<i>Professor of Pharmacy</i>
HENRY V. ARNY, Ph.M., Ph.D.....	<i>Professor of Chemistry</i>
CARLTON C. CURTIS, Ph.D....	<i>Associate Professor of Botany, Columbia University</i>
CURT P. WIMMER, A.M., Ph.M., Phar.D.....	<i>Acting Professor of Pharmacy</i>
CHARLES W. BALLARD, A.M., Ph.D.....	<i>Associate Professor of Materia Medica</i>
HUGO H. SCHAEFER, Ph.C., Ph.D.....	<i>Associate Professor of Chemistry</i>
LEWIS N. BROWN, Phar.D.....	<i>Associate Professor of Pharmacy</i>
HERBERT C. KASSNER, B.S., Ph.D.....	<i>Associate Professor of Chemistry</i>
FANCHON HART, Ph.G.....	<i>Acting Associate Professor of Materia Medica</i>
HORACE M. CARTER, Ph.G., B.S.....	<i>Acting Associate Professor of Pharmacy</i>
JOSEPH F. MCCARTHY, Phar.D., M.D.....	<i>Assistant Professor of Urology</i>
HARRY TAUB, B.S., A.M.....	<i>Assistant Professor of Materia Medica</i>
FREDERICK D. LASCOFF, Ph.G., B.S.....	<i>Assistant Professor in Pharmacy in Charge of Commercial Pharmacy</i>
JACOB DORFMAN, Ph.G., A.M.....	<i>Acting Assistant Professor of Pharmacy</i>
WILLIAM MACSATA, Ph.Ch.....	<i>Acting Assistant Professor of Chemistry</i>
ABRAHAM TAUB, B.S., A.M.....	<i>Assistant Professor of Physics and Chemistry</i>

INSTRUCTORS

VIVIAN COMMONS, Ph.G.....	<i>Instructor in Pharmacy</i>
PHILIP KERKER, A.B.....	<i>Instructor in Materia Medica</i>
SAUL KAYE, Ph.G.....	<i>Instructor in Pharmacy</i>
AUGUSTUS A. MAIER, B.S.....	<i>Instructor in Chemistry</i>
LESLIE JAYNE, B.S.....	<i>Instructor in Analytical Chemistry</i>
FRANK POKORNY, Ph.Ch.....	<i>Instructor in Materia Medica</i>

*1927-1928 Absent on sabbatical leave.

JOSEPH E. ADAMS, Ph.Ch.....	<i>Instructor in Materia Medica</i>
ALEITA HOPPING, Ph.D.....	<i>Instructor in Physiology</i>
MAXWELL KARSHAN, B.S., Ph.D.....	<i>Instructor in Biological Chemistry</i>
WILLIAM KEENAN, Ph.G.....	<i>Instructor in Materia Medica</i>
MILTON D. SEWELL, Ph.G., B.S.....	<i>Instructor in Physics and Chemistry</i>
THEODORE FAILMEZGER, Ph.Ch.....	<i>Instructor in Chemistry</i>
JOSEPH P. MIALE, Ph.Ch.....	<i>Instructor in Pharmacy</i>
HELEN TIMMERMAN, B.S., Ph.D.....	<i>Instructor in Materia Medica</i>
SAMUEL LIBERMAN, Ph.Ch., B.S.....	<i>Instructor in Physics and Chemistry</i>
VICTOR LEWITUS, Ph.G., B.S.....	<i>Instructor in Materia Medica</i>
RUDOLF HAUCK, Ph.Ch., B.S.....	<i>Instructor in Pharmacy</i>
HERMAN J. AMSTERDAM, Ph.G., B.A.....	<i>Instructor in Pharmacy</i>
CHARLES H. SOREN, Ph.G., B.S.....	<i>Instructor in Chemistry</i>
EDWARD ANZELMI, Ph.Ch.....	<i>Instructor in Chemistry</i>
†.....	<i>Instructor in Pharmacy</i>

LECTURERS

ISIDORE NEUSTAEDTER, Phar.D., LL.B.	<i>Lecturer in Pharmaceutical Jurisprudence</i>
THOMAS F. MAYO, A.M.....	<i>Lecturer in English and American Government</i>

UNIVERSITY OFFICERS OF ADMINISTRATION

FRANK DIEHL FACKENTHAL, A.B.....	<i>Secretary of the University</i>
ADAM LEROY JONES, Ph.D.....	<i>Director of University Admissions</i>
CHARLES C. WILLIAMSON, Ph.D.....	<i>Director of Libraries</i>
ROGER HOWSON, M.A.....	<i>Librarian</i>
DAVID M. UPDIKE, M.E.....	<i>Superintendent of Buildings and Grounds</i>
HENRY V. ARNY, Ph.D.....	<i>Librarian of the College of Pharmacy</i>
EDWARD J. GRANT, A.B.....	<i>Registrar of the University</i>
CHARLES S. DANIELSON.....	<i>Bursar of the University</i>
HENRY LEE NORRIS, M.E.....	<i>Director of Works</i>

†To be appointed.

GENERAL STATEMENT

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the School of Medicine with courses leading to the degree of Doctor of Medicine; the Schools of Mines, Engineering, and Chemistry, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; the non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy. In addition to these Schools and Faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; and the College of Pharmacy of the City of New York, with courses leading to the degrees of Pharmaceutical Chemist and Bachelor of Science.

The University maintains three Sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standard of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

REGISTRATION

Before attending any University exercises each student shall present himself at the office of the Registrar and shall there file a registration blank giving such information as may be required for the University records together with a statement of the courses he is authorized to pursue. The places of registration are the general office of the Registrar of the University in University Hall; the College of Physicians and Surgeons, 437 West Fifty-ninth Street; the School of Dental and Oral Surgery, 302 East Thirty-fifth Street; the College of Pharmacy, 113-119 West Sixty-eighth Street; Barnard College; and Teachers College. To complete his registration the student shall pay the required fees.

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The *Announcements* of each College or School, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

The *Announcement* of each School contains a schedule of fees and expenses for the courses in that School.

LIBRARY

The libraries of the University contain about 1,025,000 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture-rooms and laboratories. The Avery Architectural Library, the Law Library, the Ella Weed Library of Barnard College, Teachers College Library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

RESIDENCE HALLS

There are four residence halls for men on South Field: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Field, with accommodations of room and board for 360 students in the graduate and professional schools and Tompkins Hall, situated on Claremont Avenue in immediate proximity to the campus, with a capacity for 100 graduate students, are residence halls for women.

All the University residence halls, for both men and women, are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

Detailed information and advice concerning desirable rooms and boarding places in the vicinity of the campus for both men and women may be obtained by writing to the Residence Bureau, Room M, Earl Hall.

In addition to the dining-halls in John Jay and Johnson the University maintains the following cafeteria restaurants (service à la carte) which furnish wholesome food at moderate rates: The Commons (men and women) University; Barnard Hall Lunch Room (women) Barnard Hall; Teachers College Cafeteria (men and women) Grade Dodge Hall, 121 St. The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.

EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the Appointments Office, Residence Bureau, Men's Residence Halls Office (where may also be found the Director of Earl Hall who is in charge of social affairs on the campus), the Trophy Room and Lobby, containing team pictures and trophies. On the upper floor are located offices for the Chaplain of the University and the Director of Religious Activities, and an auditorium seating 400 people which is available for student receptions and dances. The first floor (entrance from Broadway) is occupied by the offices of the University Medical Officer.

MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Medical Officer.

THE COLLEGE OF PHARMACY

The ninety-eighth annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 26, 1927.

Prospective students should carefully note Rule No. 16 of the Pharmacy Laws of the State of New York, part of which is as follows:

"c Matriculation. A matriculant of any registered school of pharmacy in New York State must possess the 'Registered Apprentice Certificate' before matriculation is completed. Any student who has not had practical experience prior to entering the school or who has had experience in another State than New York, shall be registered as an apprentice by the executive officer of such school."

An amendment to the pharmacy statute, which becomes Chapter 338 of the Laws of 1924, provides that a graduate of a registered school of pharmacy who is not 21 years of age and who has not had the required practical experience in a registered pharmacy, may be admitted to the examination in theoretical subjects only and on passing the same may thereafter be required to take only the practical examination when he has met the statutory requirements of the law. Such applicant does not receive any certificate upon passing the examination and is not granted any right or privilege because he passes the theoretical examination. A second fee of \$10.00 must be paid when taking the practical examination. The amendment became operative on January 1st, 1926.

Students who have served in either the Medical Department of the U. S. Army or the Hospital Corps of the U. S. Navy, and whose discharge papers note such service, may receive credit therefor toward meeting the experience requirement of the State Board of Pharmacy.

The attention of prospective students is called to the increasing call for graduates of advanced courses, to fill other professional positions. The general application of federal, state and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which formerly, were often left to incompetent and irresponsible employees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

Another class of demands that are frequently encountered is for instructors, professors and heads of departments in pharmacy schools. The teaching staffs in the schools of pharmacy of the United States now include nearly one thousand members. However well qualified these instructors may be as to knowledge of the subjects that they are engaged in teaching, few of them have received the special training in the theory and art of teaching which is considered essential for teachers in other schools. Special provision for this work, as an elective, is called for in the complete pharmaceutical curriculum.

To meet these higher requirements, three and four year courses of study, leading respectively to the degrees of Pharmaceutical Chemist (Ph.Ch.) and Bachelor of Science in Pharmacy (B.S. in Phar.), have been established.

It is particularly worthy of note that our conditions for these degrees have been adopted by the Education Department of the State of New York as a State requirement.

THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the City. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus and Amsterdam Avenue lines connect with nearly all surface lines in the City. The completion of the various tunnels under the Hudson, East and Harlem rivers has greatly facilitated and expedited suburban transportation. Central Park is within two blocks of the College, and the American Museum of Natural History and the Medical Department of the University are each about a half-mile away. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College Building was erected after a study of the principal buildings of the kind in this country and abroad. Experience has failed to show any material feature in which it could have been better adapted to the purpose of pharmaceutical instruction, either theoretical or practical, but so great has been the increase in the applications for admission that it has been found necessary to provide greater accommodations in the form of an additional connecting building.

In its planning, two principal objects have been kept in view; first, provision for a large increase in the membership of the first and second-year classes; second, greatly increased and improved facilities for the work of the higher classes. In connection with the latter, extensive provision has been made for research work, by both faculty and special students. Our Library has also been greatly improved, the entire lower floor of the new building having been reserved for its accommodation.

THE LIBRARY

The Library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy. Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the General Library of Columbia University, on Morningside Heights, the Library of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great Library of the Surgeon-General's office at Washington.

The Library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the Library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library

copies of the text-books in use by the College may not be removed from the library.

INFORMATION BUREAU

The Information Bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the Bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service.

1. Telephone inquiries will be answered cheerfully without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the Information Bureau, Trafalgar 1733, and will receive information immediately if it is accessible.

2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.

3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.

4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical or botanical periodicals will be prepared for those desiring to pay for such service.

5. As in the past, all visitors to the Library, desiring to do their own research work, will be given courteous attention.

EMPLOYMENT FOR STUDENTS

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

The general plan adopted may be briefly stated as follows: Each pharmacist engages both a first and second year student, who shall work alternately three days during the week and half a day on Sunday. This allows the students half their time for College work and necessary rest. The College course lectures are arranged so as to harmonize with this plan.

Any student wishing to secure employment should upon entering College communicate with the Registrar.

Within easy reach of the College are some three thousand pharmacies, where students who have had some experience in pharmacy may obtain employment with salary sufficient to pay the whole or a large part of their expenses while attending College.

COURSES OFFERED

Two Regular Courses of study are offered, known respectively as the College Course and the University Course, and three Evening Courses in the Departments of Materia Medica, Pharmacy and Chemistry. A Summer Preparatory Course is provided, designed to enable students so desiring to better prepare themselves for the fall supplementary examinations.

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. Members of the University class only are recognized as students of the University, and certain of the University privileges are open only to them.

2. The University Class attends on five days weekly, instead of three, as does the College Class, and the course includes regular work in academic subjects, conducted by special instructors supplied by the Dean of the Faculty of Columbia College (See page 18), this work receiving full credit from the University toward the baccalaureate degree.

3. For the University Class, the College provides a thorough course of laboratory instruction in advanced Chemistry, Pharmacy and Physics and special courses in Microscopy and Bacteriology, consisting of both theoretical and laboratory instruction.

4. Not only is the degree of Pharmaceutical Chemist recognized as of higher rank than that of Graduate in Pharmacy, but the three-year course for which it is awarded qualifies its recipients for many lines of pharmaceutical work that are not open to graduates from the College Course.

5. The degrees of Pharmaceutical Chemist and Bachelor of Science in Pharmacy are conferred by the University, that of Graduate in Pharmacy by the College.

It may be said in conclusion that the present tendency is strongly toward a higher educational grade than that represented by the Graduate degree, and the degree of Graduate in Pharmacy is ceasing to represent a satisfactory professional preparation.

Through a faculty consisting of forty-one active members, students in all classes derive the benefit not only of the most advanced methods, but of instruction in small groups or class sections, thus allowing the largest amount of individual attention.

IMPORTANT ANNOUNCEMENTS

So numerous and important are the changes here announced, in both our College and University Courses, that they amount to a virtual reorganization. In order to meet the new conditions, it has been found necessary to add twelve new members to the teaching staff.

The following conditions will remain, as announced in our preceding Bulletin.

1. No practical experience in drug store or pharmacy will be required previous to matriculation, in lieu of which the State Education Department has accepted the increased training in operative and commercial pharmacy that has been provided.

2. No student will be admitted more than two weeks after the date of opening of the session.

3. All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. The proper blanks will be furnished on application to the Registrar of the college.

4. All matriculants for this session must pay at least one-third of the tuition fee for the year, on or before the 3rd day of September, 1927, failing which, their places will be filled by others, and no part of this sum will be refunded subsequently in case of the discontinuance of their course.

5. Any student who has failed in a laboratory course must make up this deficiency during the summer session, and cannot be allowed laboratory space during the regular session of 1927-1928. To this rule there may be certain exceptions, in case the laboratory work cannot be done during the summer.

6. Students intending to compete for the Plaut Fellowship should carefully read the conditions stated on page 28 of this *Announcement*, and take early steps to qualify for such competition.

7. According to the present valuation of high school work by the New York State Education Department, that of each year is rated as 18 counts, instead of 15 as formerly. The equivalent of high school graduation, when secured otherwise than by such graduation, is therefore understood as being 72 Regents counts.

8. It is to be noted that Regents' professional examinations for the Pharmacy student qualifying certificate will be discontinued after the year 1927 (See page 19).

THE COLLEGE COURSE

It was a matter of great regret to this School that conditions prevented us from joining the other leading schools of the country in the inauguration of a three-year course for the degree of Ph.G. in 1925. These conditions being now removed, the advanced step will be taken during the coming year. The fundamental idea of this increase in time is generally accepted as being that of improving the quality of the work done, rather than that of providing a large amount of additional work, this improvement applying particularly to the practical features of the course. The precise object of a course leading to the degree of Graduate in Pharmacy being to prepare such graduates for meeting the conditions of service in a retail pharmacy, the greater portion of the increased time has been assigned to the department of pharmacy, and to those features of the work of the other departments which are directly contributory thereto. After a careful study of the requirements, we have concluded that the time officially assigned for this course is insufficient, and we have added 128 hours for laboratory work in commercial and dispensing pharmacy.

The accomplishment of the better training that is sought necessarily calls for the introduction of new topics in the existing syllabi, and we call special attention to the following items.

We have always regarded a course in materia medica as being incomplete that did not include instruction in the apparatus, equipment and appliances included under the title of sick-room supplies, but no opportunity has heretofore offered for practical instruction of this kind. In our reorganized course 32 hours will be devoted to explaining and illustrating the nature and use of articles of this class. Although technically pertaining to the subject of materia medica, this instruction forms an important part of the students' preparation in commercial pharmacy.

Another qualification that we deem requisite for every well equipped pharmacist is a general knowledge of the nature and effects of bacteria in their relations

with pharmacal practice. While we do not regard the conduct of a bacteriological laboratory as pertaining to the business of the ordinary pharmacist, we regard as necessary some knowledge of the principles of bacterial decomposition, sterilization and immunization, and 64 hours have been assigned for instruction in those subjects. While this subject, relating to the activities of plants, pertains technically to botany, it also has close relations with practical pharmacy.

Many of our graduates have believed, or perhaps we should say felt, that their diplomas should bear the name of Columbia University, notwithstanding that they had not pursued the University Course, but we have never believed that graduation from our two-year College Course justified that action. It has now been agreed that those who successfully pursue this new three-year course should receive diplomas bearing the University stamp.

One of the results of this addition of a third-year class will be a reduction in the number of matriculants each year, since the total capacity of the school is strictly limited. We are therefore obliged to announce that not more than 275 new students can be accepted for the session of 1927-1928.

THE UNIVERSITY COURSE

The principal changes in this course consist in

1. An increase in the required attendance to five days, with an average of 32 hours per week.
2. The introduction of courses of instruction in English, American Government, foreign language and mathematics, aggregating, during the first three years, a total of 24 points or 12 hours.
3. The meeting by matriculants of the full entrance requirements of Columbia College.
4. The B.S. in Pharmacy Course, heretofore given by this school, has not been regarded as on a par with that of the college of liberal arts and science, however complete its professional character, but the course now offered possesses the full number of points of non-professional work of the ordinary baccalaureate course, in addition to that of a professional character.
5. The Department of Health of the City of New York has placed the Bachelor of Science in Pharmacy, graduating from this course, in the position of being eligible to conduct a bacteriological laboratory or to fill similar positions.
6. Owing to the amount of space and equipment required for the performance of the work of this course, the number of matriculants is limited to fifty, annually.

ENTRANCE REQUIREMENTS

COLLEGE COURSE

This is a course of three years, each of thirty-two weeks, leading to the degree of Graduate in Pharmacy, conferred by the College, and qualifying the graduate to meet examinations for the position of Licensed Pharmacist.

The admission of students to this course is conditional upon the limitations of available space. For several years past, the College has not been able to accommodate nearly all who have applied for admission. For the session of

1927-1928, we shall have accommodations for only 275 new candidates for the degree of Ph.G. All properly qualified applicants will be admitted in the order of their application, until only fifty vacancies remain. Thereafter, we shall select only the best qualified of those applying, to fill such vacancies.

For admission to this course, the student must be at least seventeen years of age, and must present a Qualifying Certificate for a Pharmacy Student, issued to him by the N. Y. State Education Department. This certificate, or the statement of the State Education Department that the student is entitled to it, must be filed on or before November 15. Those who have successfully pursued four years' study at a high school or other school of corresponding grade, recognized by the State Education Department, can secure the certificate by sending their credentials to the Examination Division, Education Department, Albany, N. Y., on a form provided for that purpose, together with a fee of one dollar. Those unable to present such credentials are required to pass examinations held by the Department ("Regents' Examinations") in any of the subjects named in the following table which may be selected by the candidate, or in any other subjects in which examinations are given, the subjects so selected to give a total credit of at least seventy-two counts, as there indicated. These examinations are held in January, June and September, in Albany, New York, Buffalo, and Syracuse. All subjects taken in Regents' examinations to count toward the certificate must be passed at not less than 75 per cent.

Students entering on credentials from foreign countries where the language is other than English must pass an examination in English for foreigners *before being matriculated*.

It is important to note that these professional academic Regents examinations will be discontinued on January 1st, 1928. After that date it will be possible to earn credit toward a Pharmacy students certificate only by attendance at an approved day or evening high school.

Students who have attended private institutions should not fail to ascertain whether such institutions are approved by the Education Department. If not, their credentials will not be accepted, and they will be required to take the regular examinations of the Department. For information as to these examinations, the necessary fees, etc., consult the State Education Department, Albany, N. Y.

SUBJECTS OFFERED BY THE DEPARTMENT OF EDUCATION

Ancient and Modern Languages

12 Three years English	10 Second-year German
4 Fourth-year English	10 Second-year French
10 Second-year Latin	10 Second-year Spanish
10 Second-year Greek	10 Second-year Italian

Mathematics

5 Elementary algebra	2 Inter. algebra
3 Advanced algebra	2 Solid geometry
5 Plane geometry	2 Plane trigonometry

Science

5 Physics	5 Biology
5 Chemistry	5 Physical geography

History and Social Science

5 Modern history I	2½ Economics
5 Modern history II	2½ Civics
5 American history	

Commercial Subjects

5 Bookkeeping I	5 Commercial arithmetic
5 Bookkeeping II	10 Shorthand II

Drawing

2 Elementary representation	2 Elem. mechanical drawing
2 Intermediate drawing	

THE UNIVERSITY COURSES

These are courses of full academic years (September to June) leading to graduation with the other departments of the University, and to the degree of Pharmaceutical Chemist, conferred by the University, at the end of the third year, and to that of Bachelor of Science in Pharmacy at the end of the fourth.

The requirements for admission to this course are the same as those for Columbia College. The student must be seventeen years of age, must have graduated from a high school within or outside of the State of New York that is accredited by the Education Department of this State, and must present a pharmacy student qualifying certificate from the Education Department of this State, based on 72 academic counts, equal to 15 Columbia units.

Under this course, two programs are offered, one leading to the degree of Pharmaceutical Chemist, and one to the degree of Bachelor of Science in Pharmacy.

The evidence of adequate preparation for admission to the University Course in the subjects required on the part of candidates who have not completed a year of college work, *includes both examination and school records*, and are the same as those for admission to Columbia College.

The subjects which candidates may offer in fulfilment of these requirements are outlined below. (A "unit" implies the study of a subject for a time equivalent to five hours weekly for one year.)

PRESCRIBED SUBJECTS

All candidates *must* offer:

ENGLISH	{ 1 (grammar and composition)	2 units
	{ 2 (literature)	1 unit
MATHEMATICS	{ <i>ai</i> (algebra to quadratics)	1 unit
	{ <i>aii</i> (quadratics and beyond)	1 unit
	{ <i>c</i> (plane geometry)	1 unit

EITHER	
(1) Latin	4 units
OR	
(2) { Latin, Greek, French, German, Spanish or Italian 3 } { Physics or Chemistry 1 } { History 1 }	5 units
ELECTIVE SUBJECTS, to make up 15 units	4 or 5 units

ELECTIVE SUBJECTS

Group I

The candidate may offer any of the following subjects, not included among his prescribed subjects, without other restriction than that to offer an advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject.

Biology—See Zoology

The English Bible	1 unit
Elementary Greek	2 or 3 units
Elementary History	1 or 2 units
Drawing (Freehand or Mechanical)	1 unit
Music	1 unit
Intermediate French	1 unit
Intermediate German	1 unit
Intermediate Italian	1 unit
Intermediate Spanish	1 unit
Advanced French	1 unit
Advanced German	1 unit
Social Science	1 unit
Advanced Spanish	1 unit
Advanced Mathematics (College)	½, 1 or 1½ units

and in the case of candidates not offering 4 units in Latin:

Elementary Latin	2 or 3 units
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Group II

The candidate may offer not more than 4 units in all from the four subjects following:

Elementary French	2 units
Elementary German	2 units
Elementary Italian	2 units
Elementary Spanish	2 units

Group III

The candidate may offer not more than 3 units in all from the six subjects following:

Botany	1 unit
Chemistry	1 unit
Physics	1 unit
Physiography	1 unit
Shopwork	1 unit
Zoology	1 unit

¹Greek, 3 units, may be substituted for Latin, in which case 6 elective units must be offered.

NEW METHOD

Under the "New Method," candidates whose school and character records are entirely satisfactory, may meet the examination requirements by means of a psychological test. The school course must include three units in English, three in Mathematics (elementary and intermediate algebra and plane geometry), and at least three units in a foreign language, ancient or modern. It must have been concerned primarily with Languages, Science, Mathematics and History.

OLD METHOD

Under the "Old Method," the examination requirements for admission may be satisfied by any one of the three following means, or any approved combination thereof.

1. By the examinations of the College Entrance Board, held in June of each year at Columbia University and at about 150 other educational centers in the United States and abroad.

2. By the examinations conducted at Columbia University in September of each year, by the Director of University Admissions.

(The examination grades in connection with the above two methods are interpreted in the light of the record which students have made in school.)

3. By the examinations given in the high schools by the Education Department of the State of New York to students who have satisfactorily completed certain courses in these high schools. In these examinations, seventy-five per cent will ordinarily be regarded as the lowest passing mark.

For candidates qualifying for admission on the basis of examinations before Columbia University or the College Entrance Board, two methods are open:

- a. *Examination in fifteen units.* A candidate may offer examinations in fifteen units as evidence of his preparation in secondary school subjects.

- b. *Four examination plan.* A candidate who has completed a satisfactory secondary school course with a high degree of proficiency may, by special permission, satisfy the examination requirement by means of "comprehensive examinations" in not less than four subjects including those prescribed for admission.

Candidates entering by the old method are required to take the psychological examination for purposes of record only.

Those who contemplate taking the June examinations must file their applications with the Secretary of the College Entrance Board at 431 West 117th Street, New York, N. Y., on or before May 30, 1927. Those contemplating the September examinations, must file their applications with the Secretary of Columbia University on or before September 12, 1927. Blank forms of application for either series of examinations may be secured from the respective secretaries.

Every candidate for admission to the University Course should secure a copy of the current *Bulletin on Entrance Examinations and Admission* which may be had upon application to the Secretary of the University.

The course leading to the degree of Pharmaceutical Chemist will cover three years; that for the degree of Bachelor of Science in Pharmacy will cover four years. Both will involve an average of thirty-two hours of instruction weekly.

METHOD OF INSTRUCTION

The instruction of each class during the first and second years of the College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College. During the third year, an additional half-day must be devoted to work in the pharmacy laboratory. All students who can do so are urged to devote their third year wholly to College work.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.

In several departments each student receives daily, before the beginning of the work, a mimeographed copy of the exercises.

GRADUATE IN PHARMACY—COLLEGE COURSE

This course, of three years, is designed to fit the graduate for meeting the requirements of the Boards of Pharmacy of most of the states.

FEES

MATRICULATION AND REGISTRATION FEES

For the session beginning September 1927 the Board of Trustees has adopted the following schedule of fees for students in attendance.

The Matriculation Fee (\$5.00) must be paid by each student at the time of his first registration. The matriculation fee is payable but once.

The Registration Fee (\$5.00) is payable at the time of all subsequent registrations for any year or in any of the prescribed courses.

The fee for students activities, first, second and third years is.....\$10.00

TUITION FEES

College Course

The tuition fee for each year of the College Course is.....\$250.00

University Course

The tuition fee for each year of the University Course is.....\$300.00

Students who fail to pass the examinations at the end of the course or at the supplementary examinations in the fall, if they desire to repeat the year's work, must pay a registration fee of \$5.00 and a second tuition fee.

LABORATORY BREAKAGE FEE

At the beginning of each term each student is required to deposit the sum of \$10, to cover the cost of apparatus broken by him during that term. At the close of the term such portion of this fee as has not been consumed by such breakage will be returned to him.

EXAMINATION FEES

On or before April 9, 1928, all students in the first and second year classes must pay an examination fee of \$10.

Candidates for the degree of Pharmaceutical Chemist must pay on or before April 23, 1928, an examination fee of \$10.

Candidates for the degree of B.S. in Pharmacy must pay, on or before April 23, 1928, an examination fee of \$15.

SPECIAL COURSES AND SUMMER LABORATORY AND QUIZ COURSES

The fees for all special courses taken during the regular term and for all summer laboratory or quiz courses, will be charged for at the rate of \$7.50 per point, payable in advance, and computed in accordance with the schedule (synopsis of studies) on page 30.

PAYMENT OF FEES

A printed schedule of fees, with the dates when due, may be obtained in the Registrars' Office.

The matriculation or registration fee must be paid at the time of registration.

The session fee may be paid as indicated below, the student electing which plan he will accept.

All students registered in the first year class must, in order to complete their matriculation, make the first payment of their fees on or before September 3, 1927, instead of September 26, as noted below. Fees are *not* returnable under any circumstances.

A. Pay in full on or before September 26, 1927.

B. Pay one-half of the fee on or before September 26, 1927, and half on or before January 2, 1928; in this case, \$3 will be added to the first payment.

C. Pay a third of the fee on or before September 26, 1927, a third on or before December 5, 1927, and a third on or before February 13, 1928; in this case \$5 will be added to the first payment.

A student accepting plan B or C will, on failure to meet a payment, be liable to be debarred, from that date, from attendance.

The fees for the Summer Preparatory and Evening Courses are payable in advance.

All students, both regular and special, must pay their fees at the office of the College.

It is estimated that an expenditure of \$50 will cover the cost of the text-books and necessary apparatus required for the full two-year course.

REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the Bulletin Boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

AUTHORITY OF THE DEAN

The Dean is the executive officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

REQUIREMENTS FOR ALL REGULAR STUDENTS

Attendance

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third and fourth year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during ninety per cent of the hours of instruction in each year, and during eighty per cent of those of each exercise. For being late twice at daily opening the student will be charged with one absence. For failure to comply with this condition, the student will forfeit the privilege of presenting himself for examination.

Advancement in Classes

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the passing mark being 75 per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations—but *not those* who have failed, without excuse, to present themselves thereat—will be allowed to undergo a single supplementary examination to be held as announced on page 76, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course, provided however, that such students may be refused re-matriculation if, in the judgment of the faculty, they are not qualified to be students of this College. A student who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer, except in special cases.

As an aid to those students who are required to take a supplementary examination, summer quiz courses are held as per schedule on page 43. By a regulation of the State Education Department, students failing in more than one subject must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 1, 1927.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examinations on paying an additional fee of \$10 and complying with all other requirements.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again.

All students must obtain a rating of 75 per cent or higher in every department in which they may be examined. Therefore, a student may get the required number of total marks, yet fail of graduation because in one department he falls below the percentage required. Any student failing in one or more departments, but not in laboratory courses, may present himself for re-examination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without re-examination in the other departments. Should he so elect, he may be re-examined in all departments, in order to increase his general average. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 43.

PRIZES AND SCHOLARSHIPS

The College reserves the right to withhold the award of any scholarship or prize, if, in its opinion, no candidate has exhibited qualifications justifying the award.

THE HONOR ROLL

The thirteen candidates securing the highest averages at the final examinations, constitute the Honor Roll, provided, however, that such candidates shall have attained a general average of not less than 85%. The diplomas of such students will bear a special gold seal of the College, bearing the inscription "With Honor."

TRUSTEES PRIZES

The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100 each, for competition at a special examination, by members

of the graduating class who have obtained a position on the roll of honor at the regular examination for graduation. The prizes are awarded respectively for the best practical examinations in Chemistry, Pharmacy and Materia Medica. A certificate, stating the honor for which the prize was awarded, will also be given to each of the recipients of these prizes.

THE ALUMNI ASSOCIATION PRIZES

The Alumni Association of the College of Pharmacy offers three prizes to be presented at Commencement to the three students having the highest standing at graduation in the branches taught during the second year of the College course. A gold medal will be given for the best general examination, a silver medal for the second best examination, and a bronze medal for the third best examination.

Three prizes are awarded by the Alumni Association on "Alumni Day" to those members of the first-year College and University Classes who stand highest in laboratory work and who pass the best examinations in all branches of the first College year. The first prize is a Torsion balance, the second prize a copy of Army, "*Principles of Pharmacy*," and the third prize a copy of Sadtler and Coblentz, "*Pharmaceutical Chemistry*."

THE MAX J. BREITENBACH PRIZE

A cash prize of \$200, accompanied by a certificate, is presented annually for the highest proficiency in the Junior (third year) University Class. This prize is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach for many years a devoted trustee.

THE KAPPA PSI PRIZE

The Gamma Chapter of the Kappa Psi Fraternity presents annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

THE LILLIAN LEITERMAN PRIZE

Miss Lillian Leiterman, of the Class of 1911, offers a gold medal to that member of the College class who has maintained the highest standing among the women students throughout the entire College course.

THE J. LEON LASCOFF PRIZES

Trustee J. Leon Lascoff offers annually to the fourth and fifth students on the honor roll of the graduating class a year's membership in the American Pharmaceutical Association and to the sixth and seventh students on the honor roll a year's membership in any State Pharmaceutical Association.

TRUSTEES SCHOLARSHIPS

Two scholarships, entitling the winners to free tuition during the second year, are granted by the College for each session. These scholarships are awarded to

the two members of the first-year College class who secure the highest averages at the regular spring examinations.

THE GEORGE J. SEABURY SCHOLARSHIP

This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, Mr. George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the Senior (fourth) year of the University course, of that member of this class who has maintained the highest standing during the three years, provided, however, that such student is eligible for the degree of B.S. in Phar., and shall not receive both this scholarship and the Max J. Breitenbach prize.

THE ISAAC PLAUT FELLOWSHIP

This Fellowship for the encouragement of graduate study and original research was founded by Mr. Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this Fellowship must have secured the degree of B.S. in Pharmacy at this school, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this College who shall have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

The Fellow shall be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He shall attend a foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and shall pursue a course of study approved by the Faculty. At the close of his incumbency he shall present to the Faculty a written report of his work.

The Fellowship payment shall be made in three equal instalments, one on June 15, one on November 1, and one on March 1, provided that the Fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he shall forfeit all further privileges and emoluments conferred upon him by his appointment to the Fellowship, and the Trustees of the College of Pharmacy may declare the Fellowship vacant.

N.B.—Competition for the Kappa Psi Prize, the Seabury Scholarship and the Plaut Fellowship is open only to those students who take their entire course at this College.

Since its foundation, the following Plaut Fellows have continued their studies towards the degree of Ph.D.

Moritz A. Dittmar, B.S., 1920, Ph.D., University of Bern, Switzerland, 1922. Assistant Superintendent of the laboratories of Lehn and Fink.

Herbert C. Kassner, B.S., 1921, Ph.D., University of London, England, 1923. Associate Professor of Chemistry, Columbia University, College of Pharmacy.

Helen A. Timmerman, B.S., 1925, Ph.D., University of London, England, 1927. Instructor in Materia Medica, Columbia University, College of Pharmacy.

Fred Levine, B.S., 1927. Graduate student at the University of London, England.

THE E. R. SQUIBB PRIZE

This is an annual cash prize of \$100., founded by Messrs. E. R. Squibb & Sons, in memory of Dr. E. R. Squibb. It is awarded to that graduate in Pharmacy who exhibits the greatest proficiency in Analytical Chemistry during his second year, as determined by the laboratory records.

THE LOUIS DOHME PRIZE

This is an annual cash prize of \$100., founded by Messrs. Sharp & Dohme, in memory of Mr. Louis Dohme. It is awarded to that graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopœia and National Formulary, as determined by the laboratory records and final examinations.

THE JOSEPH WEINSTEIN PRIZE

This prize consists of a compound microscope and is established by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that graduate in Pharmacy who has exhibited the greatest proficiency in Analytical Chemistry during the two years, as determined by the laboratory records and the final examination, and who has not secured any other prize.

THE ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE

This Association offers annually a gold medal to the member of the graduating class who has obtained the highest general average in practical laboratory work during the second year.

THE LEHN AND FINK PRIZE

This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the graduate attaining the highest standing at the examinations in Pharmacy.

THE WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE

This Association offers annually a gold medal to that member of the graduating class who has attained the highest general average in practical laboratory work, during both years, in the Department of Pharmacy.

THE GERMAN APOTHECARY'S ASSOCIATION PRIZE

In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited the greatest proficiency in the compounding of prescriptions in the senior year.

THE OLSHANSKY MEMORIAL MEDAL

This is a gold medal, founded by the students of this school in attendance upon the session of 1923-1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in his class in the subject of Dispensing Pharmacy.

SYNOPSIS OF STUDIES FOR THE SESSION OF 1927-1928

(For information regarding subsequent years, see p. 79)

COLLEGE COURSE

First Year

		Class Hours	Laboratory Hours	Points
MM 13-14	<i>Gross</i> Botany + Vegetable Histology	1	4	6
MM 15-16	Botany	2	0	4
MM 19-20	Posology	1	0	2
Chm. 1-2	General Physics	2	0	4
Chm. 3-4	Inorganic Chemistry	3 $\frac{1}{2}$	0	7 $\frac{1}{2}$
Chm. 5-6	Analytical Chemistry	1 $\frac{1}{2}$	3	4 $\frac{1}{2}$
Phr. 7-8	Theory of Pharmacy, Pharmaceutical Arithmetic and Latin	4	0	8
Phr. 9-10	Practical Pharmacy	0	2	2
Phr. 11-12	Dispensing Pharmacy	0	1	1

Second Year

		Class Hours	Laboratory Hours	Points
MM 59-60	Materia Medica	3	0	6
MM 73-74	Toxicology	1	0	2
MM 61-62	Pharmacognosy	0	3	3
Chm. 51-52	Organic Chemistry + <i>Pharmac.</i>	4	0	8
Chm. 53-54	Analytical Chemistry	0	3	3
Phr. 55-56	Practical Pharmacy	3	2	8
Phr. 57-58	Dispensing Pharmacy	1	1	3
Phr. 63-64	Pharmaceutical Jurisprudence and Commercial Pharmacy	1 $\frac{1}{2}$	1 $\frac{1}{2}$	4 $\frac{1}{2}$

UNIVERSITY COURSE

First Year

		Class Hours	Laboratory Hours	Points
MM 15-16	Botany	2	0	4
MM 21-22	Plant Morphology and Histology	1	4 $\frac{1}{2}$	6 $\frac{1}{2}$
MM 19-20	Posology	$\frac{1}{2}$	0	1
Chm. 1-2	Physics	2	0	4
Chm. 3-4	Inorganic Chemistry	3 $\frac{1}{2}$	0	7 $\frac{1}{2}$
Chm. 13-14	Analytical Chemistry	1 $\frac{1}{2}$	3	4
Phr. 7-8	Theory of Pharmacy, Pharmaceutical Arithmetic and Latin	4	0	8
Phr. 9-10	Practical Pharmacy	0	4	4
Phr. 11-12	Dispensing Pharmacy	0	1	1
Coll. 17-18	English	3	0	6
Coll. 23-24	American Government	3	0	6

Second Year

		Class Hours	Laboratory Hours	Points
MM 59-60	Materia Medica	3	0	6
MM 61-62	Pharmacognosy	0	3	3
MM 73-74	Toxicology	1	0	2
Chm. 75-76	Inorganic Chem.	3	0	6
Chm. 53-54	Analytical Chemistry	0	3	3
Chm. 69	Physics	1	0	2
Phr. 55-56	Practical Pharmacy	3	22	28
Phr. 57-58	Dispensing Pharmacy	1	21	43
Phr. 63-64	Commercial Pharmacy and Phar- maceutical Jurisprudence	1½	1½	4½
Phr 102	Adv Phr.	1	2	2

Third Year

		Class Hours	Laboratory Hours	Points
MM 117-118	Bacteriology	1	2	4
MM 119-120	Morphology and Taxonomy of Crypto- gams	1	2	4
Chm. 103-104	Organic Chemistry	32	0	64*
Chm. 107-108	Analytical Chemistry	1*	10	12
Phr. 109-110	Advanced Pharmacy	2	5	9
Phr. 111-112	Dispensing Pharmacy	0	2	2
Chm 130-131	Theories of Chem	1*	0	2

Fourth Year

		Class Hours	Laboratory Hours	Points
MM 151-152	Applied Pharmacognosy	¾	5	6½
MM 153-154	Botanical Taxonomy	0	1½	1½
MM 155-156	Human Physiology	1	0	2
Chm. 157-158	Inorganic Quantitative Analysis	1	8	10
Chm. 159-160	Food Analysis and Toxicology	1	8	10
Chm. 161-162	Biological Chemistry	1	0	2
Phr. 163-164	Higher Pharmacy	3	7	10

* See page 75

OUTLINE OF COURSES

CHEMISTRY

Chemistry 1-2—General Physics. Lectures and recitations, 2 hours, 4 points. Professor A. TAUB and instructors.

This course is so arranged as to emphasize those phases which have a direct bearing upon chemistry and pharmacy. After a consideration of the general properties of matter and the elements of mechanics a number of lectures are devoted to the discussion of the kinetic molecular theory and to wave motion. This is then followed by the consideration of chapters on sound, heat and magnetism.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of physical apparatus.

Text-book: Stewart, *College Physics*.

Chemistry 71—Practical Physics. Laboratory course, 2 hours, 2 points. Professor A. TAUB and instructors.

This course has been transferred from the freshman to the sophomore year of the University Class. It will therefore not be offered during the school year 1927-1928.

The course consists of sixteen half day periods of four hours each given during the second half of the year.

Chemistry 3-4—General Inorganic Chemistry. Lectures and recitations, $3\frac{1}{2}$ hours, 7 points. Professors ARMY and A. TAUB and instructors.

This course, the beginning of consecutive instruction in chemistry covering three years, is given to the first year students of both the College and the University Classes. It opens with a careful consideration of the fundamental principles of chemistry, special attention being given to the modern theories concerning valence, chemical equilibrium, oxidation and reduction and atomic structure.

Exercises in writing and calculating chemical equations and work on problems in chemical arithmetic are given in special quiz periods devoted exclusively to these important subjects.

On the side of descriptive chemistry, the non-metals and their compounds are discussed from their cultural, technical and pharmaceutical viewpoints.

Text-books: Deming, *General Chemistry*, second edition; U. S. *Pharmacopæia*.

Chemistry 5-6—Analytical Chemistry. (For First Year College Students). Laboratory and recitations. $3\frac{1}{2}$ hours, 4 points. Professors SCHAEFER and MACSATA and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized and separations and identifications of group members are performed. Finally, all facts acquired by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on samples of unlike composition.

Text-book: Hostmann and McAdams, *Laboratory Manual of Analytical Chemistry*.

Chemistry 13-14—Analytical Chemistry (for University Freshmen). Laboratory and recitations. $3\frac{1}{2}$ hours, 4 points. Professor KASSNER and instructors.

The student will first be made familiar with laboratory processes by means of a course of experiments in general chemistry— isolation of elements, preparation of pure compounds by means of precipitation, crystallization, etc. and examination of their properties. Simple laws and phenomena will be explained to the student in the course of this work. In this way, experience in manipulation, and a true understanding of the subject will be obtained.

This preliminary course leads to a systematic course in qualitative analysis but during the first year the reactions of the basic ions only are studied. The student is taught the separation and identification of these, and finally is required to analyze systematically solutions containing two or more basic ions.

Chemistry 69—General Physics (for University Sophomores). Lectures and recitations. 1 hour, 2 points. Professor SCHAEFER and A. TAUB.

This course is a continuation of Chemistry 1-2 (General Physics) and embraces the subjects of electricity and light. Special consideration is given to ionization, electrolysis, the electron hypothesis, the spectroscope, spectrum analysis, double refraction and the polariscope.

The lectures will be accompanied and made more interesting by many exhibitions and experiments.

Text-book: Stewart, *College Physics*.

Chemistry 51-52—Pharmaceutical and Organic Chemistry (for second year college students.) Lectures and recitations, 4 hours, 8 points. Professors ARNY and A. TAUB and instructors.

In the lecture course, special care is taken to keep the student instructed in the new and constantly increasing applications of this science in the art of pharmacy and medicine. The preparation of the more common organic chemicals is fully treated, and the possibilities of advances under modern methods of research are presented to the student as they are reported. This department of modern pharmaceutical education is becoming more important each year, and no pains are spared to keep the instruction in Organic Chemistry fully up to the demands of the times.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up, explained in detail, and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Text-book: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; U. S. Pharmacopæia.

Chemistry 53-54—Analytical Chemistry (for second year College and University Classes). Laboratory course, 3 hours, 3 points. Professors SCHAEFER and MACSATA and instructors.

The early part of the second-year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

Quantitative Analysis.—Instruction in quantitative analysis is then introduced. This training is intended to enable the pharmacist to determine the purity of medicinal chemicals and to find the percentage strength of preparations. Volumetric analysis being simple, rapid and accurate for many medicinal substances, receives special consideration. As in the first year, all reactions are discussed and the changes involved in them are represented by equations. The quantitative significance of chemical changes is emphasized, derivation of equivalent quantities is discussed and the use of empirical solutions is practiced. Accurate weighing and measuring are insisted on. The student is obliged to perform careful and accurate determinations of the various components in samples furnished him, and after checking his results, to render an extensive report.

Drug Assaying.—The instruction in quantitative analysis is extended to the determination of the amounts of the active or principal constituents of drugs and galenicals. Since in the potent drugs and their preparations the quantities of the active constituents are very small, the sources

of error in assaying them must be reduced to a minimum. The treatment that must be carried out for their isolation requires much care and skill in manipulation. It is for these reasons that this work, of necessity, falls in the last part of the course, when the student shall have been sufficiently trained to pursue the work intelligently and skillfully.

Text-book: *U. S. Pharmacopæia*.

Chemistry 75-76—Inorganic Chemistry (for University Sophomores). Lectures and recitations, 3 hours, 6 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of Chemistry 3-4 will be devoted to a consideration of the non-metallic and metallic elements and their compounds. It will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry will be discussed. In descriptive chemistry, the course will consider the remaining non-metallic elements and all of the more important metallic elements. These will be discussed from the standpoint of modern industrial chemistry.

Text-book: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition.

Chemistry 103-104—Organic Chemistry (for University Juniors). Lectures and recitations, 3 hours, 6 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of Chemistry 3-4 and 75-76, will be devoted to a comprehensive study of the carbon compounds; special care being taken to keep the course abreast the new applications of organic chemistry in pharmacy and medicine. The preparation of the more common organic chemicals is given careful consideration and advances under modern methods of research are presented to the class as they are reported.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up, explained in detail, and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Text-book: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; *U. S. Pharmacopæia*.

Chemistry 130-131—Theories of Chemistry (for University Juniors). Lectures and recitations, 1 hour, 2 points. Professor SCHAEFER.

The object of this course is to bring together, to correlate and to elaborate somewhat the various theories presented to the student in the regular chemistry and physics lectures. Consideration is given to the kinetic theory, the gas laws, the laws governing change of state, the quantitative laws of chemical combination, the atomic hypothesis, the laws of valence, the periodic system, radio activity, atomic disintegration, atomic structure, solubility, ionization, indicators, equilibrium, electrochemistry and colloids.

Special importance is placed upon the practical application of modern theories of physical chemistry to analytical processes and methods.

Text-book: Chapin, *College Chemistry*.

Chemistry 107-108—Analytical Chemistry and Urine Analysis (for University Juniors). Laboratory, 10 hours, 10 points. Professor KASSNER and instructors.

This laboratory course is given to the University Juniors in two groups, each group having 14 weeks of instruction.

The first period, comprising 100 hours, will be devoted principally to qualitative work. Students will be supplied with pure and adulterated chemicals. Tests of purity and identity will be performed upon the following: chloroform, ether, ethyl acetate, phenol, glycerol, alcohol, amyl alcohol, cresol, creosote, acetanilid, chloral hydrate, paraldehyde, formaldehyde, acetphenetidin, salicylic acid, acetylsalicylic acid and such other chemicals which will give the student practice in the "General Tests" of U. S. P. X.

During the second period of 100 hours, gravimetric and volumetric methods will be studied.

The student will prepare normal acid and alkali solutions. The former will be standardized with barium chloride and silver nitrate, the latter with potassium bitartrate, etc. The finished solutions will then be run against each other. Following upon this, the student will prepare iodine, potassium permanganate, sodium thiosulphate, etc., volumetric solutions. After standardizing same, he will use them in volumetric assays not covered during the second year. The gasometric assays of ethyl nitrite and amyl nitrite as well as the assay of volatile oils will then be taken up and will extend into the third period of 100 hours which will be principally devoted to the proximate assays of the U.S.P. and of galenicals.

The final period of 30 hours will be devoted to the analysis of urine. In addition to the routine qualitative and quantitative tests, the student will receive instruction in the principles and use of colorimeters and polarimeters.

Text-books: *U. S. Pharmacopœia*; Stieglitz, *Qualitative Chemical Analysis*; Amrhein, *Manual of Urine Analysis*.

Chemistry 157-158—Inorganic Quantitative Analysis (for University Seniors). Lectures 1 hour, laboratory, 8 hours, 10 points. Professor KASSNER and instructors.

The aim of the fourth-year work in Analytical Chemistry is to carry forward the instruction in chemical analysis to such a point that the student may be able to execute the more important chemical and pharmaceutical analyses.

The object of analytical chemistry is twofold, viz.: qualitative and quantitative. During the first year the detection of the component elements of compounds of unknown composition are studied, while the work of the second and third years applies to determination of the relative proportional amounts of the components of the various compounds studied, chiefly by the aid of volumetric methods, leaving the more difficult and complex processes of gravimetric analysis to be taken up in the fourth year.

The work will consist chiefly of gravimetric determinations, but will perforce include the testing, adjusting and calibrating of delicate balances and other apparatus.

Text-book: Clowes and Coleman, *Quantitative Analysis*. Reference-book, Fresenius, *Quantitative Analysis*.

Chemistry 159-160—Food Analysis and Toxicology (for University Seniors). Lectures 1 hour, laboratory, 8 hours, 10 points. Professors ARNY and KASSNER and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course of thirty hours extending through the entire year, describing the various chemical methods of food examination and explaining the principles underlying the more complex physical instruments employed by the students in their laboratory course.

Text-books: Leach, *Food Analysis*; Autenrieth-Warren, *Detection of Poisons*; Mason, *Examination of Water*.

Reference-Book: Allen, *Commercial Analysis*.

Chemistry 161-162—Biological Chemistry (for University Seniors). Lectures 1 hour, 2 points. Dr. KARSHAN.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

MATERIA MEDICA

Materia Medica 65-66—Human Physiology and Hygiene (second year College and University Classes). Lectures and recitations, 1 hour each, 4 points. Professors RUSBY and HART and instructors.

In addition to the skill in Pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in Human Physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies, in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of Physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of Materia Medica as is properly required of the practising pharmacist.

Text-book: Bachman and Bliss, *Essentials of Physiology*; Howell, *Physiology*.

Materia Medica 15-16—Botany (first year College and University Classes). Lectures and recitations, 2 hours, 4 points. Professors RUSBY, HART and TAUB and instructors.

The object of this course is to prepare the student for an understanding of that part of Materia Medica which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction embraces the morphology of the higher plants, from which nearly all of our vegetable drugs are derived, the terms used in official description, systems of classification, botanical nomenclature, and the relations of the lower to the higher plants.

The lectures are illustrated by large colored charts, and each student is furnished with cards bearing mounted specimens.

For the use of the instructor in the Quiz Room, the Alumni Association has provided an elaborate series of papier-mache models arranged to illustrate structure and dissection.

Text-book: Rusby, *Manual of Botany*.

Materia Medica 81-82—Biology of Micro-organisms (second year College Class). Lectures and recitations, 1 hour, laboratory, 1 hour, 3 points. Professor HART and instructors.

This subject constitutes an introduction to the nature, behavior and effects of micro-organisms, especially of bacteria. Without entering upon the subject of practical laboratory bacteriology, as is done in the University course, it discusses the life history of bacteria, and the part that they play in fermentation and decomposition, as well as in disease, and indicates the general nature of the means employed in combatting them, and treats of biological products. The subject of sterilization, as employed in the pharmacy, and the principles of antiseptics and immunization are studied.

Materia Medica 13-14—Botany Laboratory (first year College Class). Lectures and recitations 1 hour, laboratory, 4 hours, 6 points. Professors BAL-LARD, HART and TAUB and instructors.

Gross Botany.—Pharmacognosy, while itself not a science, may be regarded as the art of applying scientific knowledge to the examination of drugs. The theoretical and practical training of the lecture and recitation room is designed to fit the student for such botanical observations as can ordinarily be made with the naked eye.

To enable him to extend these observations by the use of the simple or dissecting and the compound microscope, in preparation for the study of Pharmacognosy in the following year, a course

of laboratory instruction is provided. This portion of the work is under the direction of Professor Hart, and consists in thoroughly training the students in the use of the simple microscope, and in teaching the structure of all parts of the plant which can be studied with that instrument.

The material for these studies is collected during the summer season, and carefully selected with a view to best illustrating the points brought out in the lecture-room.

Vegetable Histology.—As ability to properly use a microscope is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts of the instrument. The uses of the various types of objectives, oculars, illuminating apparatus and mechanical accessories are explained and demonstrated. The details of sectioning, embedding, staining and mounting specimens are illustrated by demonstrations, and at least part of the work is performed by the student.

The course includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant. Each student prepares a set of specimens for use in the course and is required to follow the lecture explanations by personal observation and drawings illustrating the topics considered at each session.

Text-books: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.

Materia Medica 21-22—Plant Morphology and Histology (first year University Class). Lectures 1 hour, laboratory, 4½ hours, 6½ points. Professors BALLARD, HART, TAUB and instructors.

Morphology.—The laboratory course in histology is designed to supplement the lectures in pharmaceutical botany (M.M. 15-16). It affords practical training in simple plant dissection, both with and without the dissecting microscope, thereby illustrating the topics considered in the above lecture course and fitting students for the advanced studies of pharmacognosy and taxonomy.

Histology.—This section of the course includes a detailed study of the various cellular elements considered both as individual tissues and as integral parts of plant organs. This is followed by a systematic review of the derivation of these tissues and organs in the evolution of the higher forms of plant life from the lower. One or more representative orders of the Thallophyta, Bryophyta, Pteridophyta and Spermatophyta will be studied in detail.

Texts: Ballard, *Elements of Vegetable Histology*, 2nd Edit.; Ballard and Hart, *Laboratory Manual*; Rusby, *Manual of Botany*; Curtis, *Nature and Development of Plants*.

Materia Medica 19-20—Posology (first year College and University Classes). Recitations, 1 hour, 2 points. Professor TAUB.

The practice in some states of issuing licenses as Assistants to those who have not completed their pharmacy course renders it necessary that the more important facts regarding dosage and danger of poisoning should be taught in the first year course. These recitations are designed to meet this requirement.

Materia Medica 59-60—Materia Medica (second year College and University Classes). Lectures and recitations, 3 hours, 6 points. Professors RUSBY, HART and TAUB and instructors.

This course includes instruction in both the inorganic and organic divisions of drugs.

In these lectures, the order of arrangement of the drug will be primarily in accordance with the nature of their active constituents and then their therapeutical properties and uses, their botanical relationships being treated subordinately. In this way, the organic and inorganic drugs will be grouped together.

Text-books: Culbreth, *Materia Medica and Pharmacology* (for University students, Gould, *Pocket Medical Dictionary*).

Materia Medica 73-74—Toxicology (second year College and University Classes). Lectures and recitations, 1 hour, 2 points. Professors RUSBY, HART and TAUB and instructors.

The classification of poisons is based upon the Physiological Action of Medicines, taught in the preceding year, and is synoptically presented at the beginning of the course in *Materia Medica*. The Toxicology of the individual drugs is then taken up in detail in connection with their physiological action and medicinal uses. Experience has shown that by this method the modes of occurrence of poisoning accidents, the poisonous doses, the action of poisons and their rational treatment, are all made more intelligible to the student, and are better impressed upon his memory, than by treating the subject as entirely disconnected from that of *Materia Medica*.

Text-book: Brundage, *Manual of Toxicology*.

Materia Medica 61-62—Pharmacognosy.

Materia Medica 61—Macroscopic Pharmacognosy (second year College and University Classes). Laboratory, 3 hours, 3 points. Professors BALLARD, HART and TAUB and instructors.

This part of the course comprises laboratory instruction in the classification, identification and description of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial sources; official description, definition and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs and many non-official articles of commercial or technical importance as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. Botany (Course *MM. 15-16* or its equivalent) is prerequisite to a proper understanding of the work in this course.

Text-books: Mansfield, *Materia Medica and Pharmacognosy*; Youngken, *Pharmacognosy*.

Materia Medica 62—Microscopic Pharmacognosy.

Microscopic.—The preliminary work of this part of the course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (Course *MM. 17-18*) is coordinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements *in situ* and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

Text-books: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.

Materia Medica 67-68—Pharmaceutical Sundries (third year College Classes 1928-1929). Lectures and recitations 1 hour, 2 points.

The object of this course is to prepare the graduate to deal with the numerous sanitary and sick room supplies, other than drugs and medicines, that are furnished by the average pharmacist to his customers. The complaint is almost universal among pharmacists, that the graduates supplied to them by the pharmacy schools know little or nothing regarding such common articles as syringes, bandages, dressings, thermometers, catheters, apparatus for treatment of the eye and ear, and many other similar articles which he is called upon to sell, and explain. It is believed that this short course, fully illustrated by abundant examples, will do much to correct this deficiency.

Materia Medica 151-152—Applied Pharmacognosy. Lecture $\frac{3}{4}$ hour. Laboratory 5 hours, $6\frac{1}{2}$ points. Professors BALLARD and HART.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials, using these sections for the demonstration of staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work, it is expected that the student will avail himself of the library facilities of the School and freely use the economic drug and food collections of the laboratory for reference and comparison purposes. The aim is to duplicate actual commercial laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, as far as possible, be commercial products which have been analyzed by microscopical methods.

Prerequisite—Botany 15-16-17-18; Pharmacognosy 61-62. References: Winton, *Microscopy of Vegetable Foods*; Schneider, *Powdered Drugs*, National Standard Dispensary; Youngken, *Pharmacognosy*.

Materia Medica 153-154—Botanical Taxonomy. Laboratory course $1\frac{1}{2}$ hours, $1\frac{1}{2}$ points. Professor RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Text-book: Rusby, *Manual of Botany*.

References: Bentham and Hooker, *General Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

Materia Medica 117-118—Bacteriology. Lectures 1 hour, 2 points, laboratory 2 hours, 4 points. Professor HART and instructors.

The Bacteriological Laboratory in our new building has been fully equipped, and practical work in this important field is taken up. The general principles of the science are taught, and the students cultivate, stain, and study the more important microorganisms. Laboratory methods in the bacterial examination of water, air, milk, ice, sputum and excreta are given, and methods of disinfection and sterilization are practically demonstrated.

Park and Williams, *Pathogenic Micro-organisms*.

Materia Medica 79-80 (this course, pertaining to the second University year in 1929-1930 and thereafter, is the same as No. 117-118, which see).

Materia Medica 155-156—Human Physiology (for University Seniors). Text-book and Conferences 1 hour, 2 points. Miss HOPPING.

This course consists of a series of discussions, based on assigned reading, occupying 1 hour weekly throughout the term.

Text-book: Howell, *Physiology*.

MM. 119-120—Morphology and Taxonomy of Cryptogams (for University Juniors). Lectures 1 point, laboratory 4 points. Professors BALLARD and HART.

This course comprises lectures, recitations and laboratory exercises in the morphology, phylogeny and taxonomy of the Thallophyta, Bryophyta and Pteridophyta. One or more representatives of the different orders of each class and subclass will be studied in detail.

Texts: Coulter, Barnes, Cowles, *Text-Book of Botany*, Vol. I; Strassburger, *Text-Book of Botany*.

PHARMACY

Pharmacy 7-8—Theory of Pharmacy (including Pharmaceutical Latin and Arithmetic) (first year College and University Classes). Lectures 3 hours, Recitation 1 hour. Professors DIEKMAN, WIMMER, BROWN, CARTER and instructors. 8 points.

Theory of Pharmacy

The object of this course is to teach the student to put into practice in the laboratory the principles of pharmaceutical manipulation taught in the lecture room. While the student's work is individual, it is carefully supervised by professors and instructors, so that errors in conception and inaccuracies in method can be promptly corrected.

In the laboratory course the students reach a point where each is competent to prepare such pharmaceutical preparations as are in common use.

The course is designed to present, in as brief a manner as is consistent with thoroughness, those principles of Latin etymology and construction which are essential to an intelligent understanding and use of the terminology of Pharmacy.

As the time which can be devoted to this work in the present curriculum of schools of pharmacy is necessarily limited, only such parts of Latin grammar will be taken up as are required for the correct use of nomenclature of the *materia medica*, and prescription writing.

The nomenclature of the United States Pharmacopœia and the National Formulary will be especially considered, and if time permits, that of the principal foreign Pharmacopœias will be taken up. The subject of Latin abbreviations, as used by the physician in prescription writing, will be specially treated.

Text-books: *U. S. Pharmacopœia*; *National Formulary*, 4th edition; Sturmer, *Pharmaceutical Latin*; H. C. Muldoon, *Pharmaceutical Latin*; Sturmer, *Pharmaceutical Arithmetic*.

Pharmacy 9-10—Practical Pharmacy (for first year College and University Classes). Laboratory course, 2 hours, 2 points. (University students have laboratory course, 4 hours, 4 points). Professors DIEKMAN, WIMMER, BROWN, CARTER, Dorfman and instructors.

Text-book: Diekman and Wimmer, *Pharmacy Laboratory Notes*.

Pharmacy 11-12—Dispensing Pharmacy (for first year College and University Classes). Laboratory course, 1 hour, 1 point. Professors DIEKMAN, WIMMER, BROWN, CARTER, Dorfman and instructors.

This course embraces the methods of compounding the simpler types of prescriptions. It includes theoretical instruction and training in manual work. The habit of neatness and, above all, of accuracy, acquired by the student is of direct and immediate advantage to him in rendering his services more valuable to his employer.

Text-book: Diekman and Wimmer, *Dispensing Laboratory Notes*.

Pharmacy 55-56—Practical Pharmacy (for second year College and University Classes). Lectures 2 hours, recitations 1 hour, laboratory course 2 hours, 8 points. Professors DIEKMAN, WIMMER, BROWN, CARTER and instructors.

The lectures of this course serve the double purpose of furnishing a theoretical basis for the work of the laboratory and of supplementing the instruction given in the dispensing laboratory. All classes of galenical preparations are taken up and their methods of preparation not only collectively, but individually, are thoroughly considered. The common impurities of each and methods for their detection, means of preservation and incompatibilities are also considered.

The laboratory work follows closely the plan of the lectures, the student is required to prepare all classes of galenicals, together with the manufacture of the more simple chemicals and chemical preparations.

Text-books: *Pharmacopœia of the United States*; *The National Formulary*; Diekman and Wimmer, *Pharmacy Notes*.

Pharmacy 57-58—Dispensing Pharmacy (for second year College and University Classes). Recitations, 1 hour, laboratory course, 1 hour, 3 points. Professors DIEKMAN, WIMMER, BROWN, CARTER and instructors.

The work of the Dispensing Laboratory deals more especially with prescriptions and embraces the compounding and dispensing of the various types requiring technical knowledge and skill. General instruction is given the students in the proper reading and interpretation of the prescription, the recognition of the various constituents of the ingredients of the prescription, together with the proper methods and manner of dispensing them.

Pharmacy 63-64—Commercial Pharmacy and Pharmaceutical Jurisprudence (for second year College and University Classes). 4½ points. Lectures 1½ hours. Laboratories 1½ hours. Professor LASCOFF and Lecturer NEUSTAEDTER.

This course in Commercial Pharmacy is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug-store, including the choice of location, the elements of business administration and store management, insurance, problems of retail merchandising, including the value of discounts, banking, principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will be devoted largely to the principles underlying the making and interpretation of these records.

The course develops the subject rapidly devoting its time and emphasis to the foundational problems of accounting. It is built up along the lines and methods of modern accounting practice. The subject matter includes: theories of debit and credit; classification of accounts; underlying principles of various accounting records; business papers and documents used as the basis for first entry; simple problems of the balance sheet and income statement; single entry; controlling accounts; handling sales and purchases; safeguarding the cash; consignments, and related topics. Ample practice for students is provided. The work will be related to the modern pharmacy.

This course is also designed to familiarize the student with the general provisions of State and Federal Laws governing the practice of pharmacy. Ordinances and regulations having local application only will likewise be studied.

Special attention will be given to the prohibition and anti-narcotic laws and regulations.

A knowledge of these laws and regulations is essential to the proper and safe conduct of a drug-store or pharmacy.

Pharmacy 101-102—Manufacturing Pharmacy (for third year College Class). Lectures and recitations, 2 hours, laboratory course 3 hours, 7 points. Professors DIEKMAN, WIMMER, BROWN, CARTER and instructors.

As in course 55-56 the lectures serve the double purpose of furnishing a theoretical basis for the laboratory work and of supplementing the instruction given in the dispensing laboratory. All classes of chemicals and chemical preparations are taken up and their methods of manufacture are carefully and thoroughly considered. Many preparations commonly used and prescribed in foreign countries are also considered in the work.

Particular attention is paid to the latter part of this subject, not only as regards the chemical preparations, but also the various inorganic salts and newer remedies. The subject of Homoeopathic Dispensing receives its due share of attention.

The laboratory work follows closely the plan of the lectures, the student ascertaining by appropriate tests the identity and purity of various compounds, and preparing many inorganic and organic pharmaceutical preparations and salts, such as ointments, plasters, inorganic salts, organic compounds, etc.

Text-books: *Pharmacopœia of the United States*; *The National Formulary*; *National Dispensatory*; Diekman and Wimmer, *Pharmacy Notes*.

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Pharmacy 109-110—Advanced Pharmacy (for third year University Class). Lectures and recitations, 3 hours. Laboratory work 5 hours, 11 points. Professors DIEKMAN, WIMMER, BROWN, CARTER and instructors.

The course in this department consists of a series of lectures, laboratory exercises and recitation. The scope of this work comprises the manufacture and study of a number of the more difficult Pharmacopœial and National Formulary preparations, as well as of synthetic remedies. In the manufacture of the latter class of preparations, especial emphasis will be laid upon the proper assemblage, arrangement and use of apparatus.

The entire time assigned for work in the dispensing laboratory will be devoted to a comprehensive study of the subject of prescription incompatibilities. The large number of new remedies which are constantly being employed make the work in this field attractive and valuable.

Pharmacy 111-112—Dispensing Pharmacy (for third year College and University Classes). Laboratory work, 2 hours, 2 points. Professors WIMMER, BROWN and CARTER.

Text-books: *U. S. Pharmacopœia*, 9th edition; *National Standard Dispensatory*, latest edition; *National Formulary*, 4th edition.

Pharmacy 125-126—Dispensing Pharmacy (for third year College Class). Lectures and recitations, 4 hours, laboratory course, 4 hours, 12 points. Professors DIEKMAN, WIMMER, BROWN, CARTER and instructors.

The lectures of this course embrace instruction in the reception, compounding, checking, labeling, pricing and delivery of the prescription.

The work of the Dispensing Laboratory deals more especially with prescription difficulties and embraces the all-important subject of chemical, pharmaceutical and therapeutical incompatibilities—those which may, as well as those which frequently do occur. The continual introduction of new remedies renders the subject of prescription incompatibilities a never-ending study, and it is the aim of this department to qualify its graduates for keeping pace with discovery.

Text-books: Ruddiman, *Incompatibles in Prescriptions*; Diekman and Wimmer, *Pharmacy Notes*.

Pharmacy 127-128—Business Pharmacy (for second year College and University Classes.) Without credit. Visiting lecturers.

This course will consist of a more detailed development of Pharmacy 63-64. The lectures will be on practical subjects, handled in a manner which will further prepare the student for his requirements as a business man.

Lectures by practical business men will be a feature of the course. This series of lectures will give the student the principles of merchandising from a business man's viewpoint rather than that of the pedagogue. These lectures, as well as those of the regular course are aimed to give the student a better understanding of contemporary business problems.

Pharmacy 163-164—Higher Pharmacy (for University Seniors). Lectures and recitations, 1½ hours. Laboratory work 7 hours, 10 points. Professors DIEKMAN, WIMMER, BROWN and CARTER.

The work in this course consists of a series of lectures and practical laboratory exercises. The manufacture and subsequent analysis of flavoring extracts, cosmetics, medicated gauzes, and other articles of like nature, will receive the attention which this important subject merits. Proximate vegetable analysis will also be studied and carried on.

The time assigned for work in the dispensing laboratory will be devoted to the compounding of difficult prescriptions. Pharmaceutical topics of current interest will be discussed in a series of weekly seminars.

Text-book: *U. S. Pharmacopœia*, 9th edition.

ACADEMIC SUBJECTS

Coll. 17-18—English. Lectures and recitations, 3 hours, 6 points. Lecturer MAYO.

This is the Columbia College Course "A1-A2, in English Composition and Literature," required of all freshmen at that College.

Coll. 23-24—American Government. Lectures and recitations, 3 hours, 6 points. Lecturer MAYO.

This is the Columbia College Course "Government 1-2—American Government." It constitutes a general survey, etc., as on p. 58, Col. Coll. Bull.

Coll. 77-78—German. Lectures and recitations, 2 hours, 4 points.

This is the introductory course in German required of all freshmen at Columbia College.

Coll. 115-116—Mathematics. 5 points.

This course comprises the Columbia College Course "Mathematics A1, Trigonometry and A6r, Solid Geometry."

SUMMER LABORATORY AND QUIZ COURSES

Fees: \$7.50 per point (see synopsis of studies, page 30).

These courses are designed to assist students who have failed at the spring examinations to prepare for those of the fall, and to provide instruction for special students in the use of the microscope, in the examination of drugs and in pharmaceutical processes.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

LABORATORY COURSES 1928

June 11 to June 30—Department of Chemistry.

July 6 to July 26—Department of Materia Medica.

July 27 to August 16—Department of Pharmacy.

QUIZ COURSES 1928

These course will be held during the period from August 20 to September 8. First-year students will attend on Tuesday, Thursday and Saturday, and second-year students on Monday, Wednesday and Friday. The schedule of hours for each day will be as follows:

First Year

9-10 a. m. Dept. of Materia Medica
10-12 m. Dept. of Chemistry
12- 1 p. m. Dept. of Chemistry
2- 4 p. m. Dept. of Pharmacy

Second Year

9-11 a. m. Dept. of Materia Medica
11- 1 p. m. Dept. of Pharmacy
2- 4 p. m. Dept. of Chemistry
4- 5 p. m. Dept. of Pharmacy

EVENING COURSES

These courses of instruction, as reorganized, have been largely attended. Although they cannot be substituted for any of our regular work, leading to degrees, they have proven of great benefit to those who cannot attend instruction during the daytime and to those who desire to pursue special courses of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes. Certificates will be awarded to those who attend at least 80 per cent of all of the exercises of the course for which they register and who, in addition, receive a satisfactory grade in a final examination. Students may be admitted at any time at the discretion of the instructor in charge. A registration fee of \$6.00 is required of each student. The courses are given on three evenings of each week from Monday, October 3, 1927, to Friday, April 29, 1928. Students may pursue more than one of the courses offered during the same semester. Fees are payable in advance and are not returnable. The following courses of instruction are offered:

Chemistry, Phr. 20-e—Pharmaceutical Qualitative Analysis. 1 hour classroom and 2 hours laboratory each week. Fee \$25 each session. Professor SCHAEFER and Mr. JAYNE.

7:30-10:30 p. m., Friday.

Lecture, 7:30-8:20 p. m.

Laboratory, 8:30-10:30 p. m.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Deposit for breakage, \$10.

Chemistry, Phr. 21-e—Pharmaceutical Qualitative Analysis. 1 hour classroom and 2 hours laboratory work each week. Fee, \$25 each session. Professor SCHAEFER and Mr. JAYNE.

7:00-10:00 p. m., Friday.

Laboratory, 7:00-9:00 p. m.

Lecture, 9:10-10:00 p. m.

This course is a continuation of 20-e with particular reference to the U. S. P. tests for acid-ions. (Conditional on the enrollment of ten students.)

Fee for breakage, \$10.

Chemistry, Phr. 22-e—Pharmaceutical Volumetric Analysis. 1 hour classroom and 2 hours laboratory work. Fee \$25 each session. Professor SCHAEFER and Mr. JAYNE.

7:00-10:30 p. m., Friday.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Deposit for breakage, \$10.

Chemistry, Phr. 24-e—Examination of Urine. First semester, 1 hour lecture and 2 hours laboratory work. Fee \$25. Professor SCHAEFER and Mr. JAYNE.

7:15-10:30 p. m., Friday.

Lecture, 7:20-8:20 p. m., Friday.

Laboratory, 8:30-10:30 p. m., Friday.

In this course the qualitative and quantitative chemical tests of normal and pathological urine are studied; also the preparation and standardization of the necessary reagents. (Conditional upon the enrollment of twenty students.)

Deposit for breakage, \$10.

Chemistry, Phr. 25-e—Examination of Urine. 1½ hours lecture and 2 hours laboratory work. Fee \$25. Professor SCHAEFER and Mr. JAYNE.

7:30-10:00 p. m., Friday.

Lecture, 7:30-8:00 p. m., Friday.

Laboratory, 8:20-10:00 p. m., Friday.

In this course, a continuation of 24-e, the gravimetric, polariscopic, colorimetric and microscopic examination of urine is studied. (Conditional upon the enrollment of twenty students.)

Deposit for breakage, \$10.

Pharmacy, Phr. 12-e—Manufacturing Pharmacy. 1½ hours lectures and 1½ hours laboratory work each week. Fee \$35 each session. Professor BROWN and assistants.

7:30-10:30 p. m., Tuesday.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail. (Conditional upon the enrollment of ten students.)

Pharmacy, Phr. 14-e—Manufacture of Cosmetics and Toilet Preparations. 1 hour lecture and 2 hours laboratory work each week. Fee \$35 each session. Professor WIMMER and assistants.

7:30-10:30 p. m., Tuesday. Main lecture room, Pharmacy.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face powders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured. (Conditional upon the enrollment of ten students.)

A summary of the lecture topics will be furnished upon request.

Pharmacy, Phr. 15-e—Perfume Materials and Perfumery. 1 hour lecture and 2 hours laboratory work each week. Fee, \$50 each semester. Professor WIMMER and assistants.

Monday 7 p. m. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprise the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included. The second semester consists mainly of practical work.

A summary of the course will be mailed upon request.

Bacteriology, Phr. 18-e—Principles and Practice. 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester, \$10 breakage deposit. Professor HART and assistants.

Monday—Lectures 7:00-8:00 p. m. Room 42, Pharmacy.

Monday—Laboratory 8:00-10:00 p. m.

This course includes the bacterial examination of sputum, excreta, water, air, milk and ice.

Special attention is given to the methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology and staining properties of the more common pathogenic bacteria.

Blood Analysis 19-e—1 hour lecture and 2 hours laboratory work each week, 1 semester. Fee \$40 each semester, \$10 breakage deposit. Professor HART and assistants.

7:00-10:00 p. m., Tuesday.

Tuesday—Lecture 7:00-8:00 p. m.

Tuesday—Laboratory 8:00-10:00 p. m.

The entire semester is devoted to the chemical analysis of blood, the preparation of blood smears and blood count.

20-e—Parasites of the blood and intestines. 1 hour lecture and 2 hours laboratory work each week, 1 semester. Fee \$40 each semester, \$10 breakage deposit. Professor HART and assistants.

Tuesday—7:00-10:00 p. m.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

THE ALUMNI ASSOCIATION OF THE COLLEGE OF
PHARMACY OF THE CITY OF NEW YORK

OFFICERS AND COMMITTEES, 1927-1928

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VIVIAN K. COMMONS

Honorary President

ADOLPH HENNING

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C. P. WIMMER

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Delegates to the American Pharmaceutical Association

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ADOLPH HENNING

Delegates to the New York State Pharmaceutical Association

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HUGO H. SCHAEFER

VITO CALCAGNO

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HAROLD LEVY

FRANK V. DAMTOFT

ENDOWMENTS

For ninety-seven consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and trustees. At various times, financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this *Announcement*, in addition to the regular course of two years, leading to the degree of Ph.G., the College now provides a regular course of three years, leading to the degree of Ph.Ch., with an additional year of optional work, leading to the degree of B.S. in Phar.

Plans for a graduate course of two years, leading to the degree of Doctor of Pharmacy, have been perfected by the Faculty, but cannot be carried out at the present time, for want of the necessary material resources. That the strain of such a charge upon those resources is very great, calling as it does for an increased teaching force, newly equipped rooms and additional apparatus, requires no explanatory statement.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the School.

Since the actual instruction work of the school calls for the expenditure of our entire income received from student's fees, it follows that we are compelled, like other schools, to seek other sources of income for meeting unusual expenses.

Under the stress of immediate necessity, we have recently completed and occupied an extension to our former building, costing approximately \$300,000. This work was undertaken in the belief that the necessary amount would be contributed by the alumni and friends of the College. Up to the present time, only about one-half of the amount has been subscribed, and we present a special appeal for contributions to this cause.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

LIBRARY MAINTENANCE

The library facilities required by men engaged in advanced studies are necessarily much more extensive than those now provided by the College. The research work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the Library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.

APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to \$10,000 would admirably meet this demand.

MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or materia medica museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum proper comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three-fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the City and Federal Departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquirers could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an encyclopedic knowledge of the subject, and qualified to pursue original researches.

Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

ADDITIONAL PROFESSORSHIPS

The establishment of a number of lecture courses to be served by specialists in their respective subjects is an essential requisite in the work of the final years of an advanced course. Perhaps the most important of such subjects is the history of chemistry and pharmacy. The provision of even a short series of lectures would do much to point the way to investigation in the light of former achievement.

Those desiring to contribute toward any of the purposes named, or others in which they may be interested, will upon request be supplied with a form which may be used for the purpose.

REGISTER OF GRADUATES

PHARMACEUTICAL CHEMISTS, JUNE 1, 1926

Alfieri, Joseph Domenic
282 Main Street, Waterbury, Conn.
Dimler, Marguerite Caroline
104-9th Street, Hoboken, N. J.
Hauck, Rudolf Otto
3511 34th Street, Jackson Heights, N. Y.
Levin, Fred
77-12th Avenue, Paterson, N. J.
Liberman, Samuel Solomon
17 Attorney Street, New York, N. Y.
Miale, Joseph Peter
341 East 16th Street, New York, N. Y.
Sabella, John Frank
91 Church Avenue, Brooklyn, N. Y.
Triolo, Peter
79 Jamaica Avenue, Brooklyn, N. Y.
Trumpler, Philip
681 East 221st Street, New York, N. Y.
(9)

BACHELORS OF SCIENCE IN PHARMACY, JUNE 1, 1926

Braff, Alexander Elias
106 Ridge Street, New York, N. Y.
Hutchinson, Mrs. Emma H. Memphis, Tenn.
(2)

PHARMACEUTICAL CHEMISTS, OCTOBER 27, 1926

Failmezger, Theodore Richard
Metuchen, N. J.
Gutchin, Samuel
66 Powell Street, Brooklyn, N. Y.
Milliman, George E.
42 Rowley Street, Rochester, N. Y.
Rang, Irving Franklin
697 Halsey Street, Brooklyn, N. Y.
Ricciardelli, Sylvia Helen
241 Montgomery Street, Jersey City, N. J.
Rovero, Elizabeth Rita
304 East 28th Street, New York, N. Y.
Sager, Julius
95 West 41st Street, Bayonne, N. J.
(7)

GRADUATES IN PHARMACY, MAY 15, 1926

Abbate, Rosario
182 Cooper Street, Brooklyn, N. Y.
Abeloff, Aaron H.
125 No. White Street, Shenandoah, Pa.
Abrahamson, Abraham E.
133 Avenue D, New York City
Adler, Max Emanuel
228 East 99 Street, New York City
Aizerman, Jack
104 East 2 Street, New York City
Allen, Solomon Samuel
860 East 161 Street, New York City
Ambrose, Dominick Bernard
71 Congress Street, Newark, N. J.
Anzelmi, Edward Philip
461 Rogers Avenue, Brooklyn, N. Y.
Arndt, James Russell
128 East 11 Street, Berwick, Pa.
Baderman, Michael
33 Avenue D, New York City
Bankoff, Nathan
230 Monroe Street, New York City
Barreca, James Vincent
25 Forsyth Street, New York City
Baum, Jonathan
142 Morton Place, New York City
Becker, Julius Linden
756 Saratoga Avenue, Brooklyn, N. Y.

Beeber, Morris
134 Clymer Street, Brooklyn, N. Y.
Bellis, Bernard
55 Clinton Place, New York City
Bennett, Marion
950 Marcy Avenue, Brooklyn, N. Y.
Berkowitz, George
1074 Eastern Parkway, Brooklyn, N. Y.
Berkowitz, Samuel
36 Bristol Street, Brooklyn, N. Y.
Bevacqua, Alfred
298 Newark Avenue, Jersey City, N. J.
Bonanno, Michael
2120 Jerome Avenue, New York City
Borsuk, Irving M.
2348 Benson Avenue, Brooklyn, N. Y.
Bregman, Alexander
128 East 104 Street, New York City
Brodawsky, Isador
530 East 134 Street, New York City
Brown, Emanuel
2918 Fulton Street, Brooklyn, N. Y.
Brownstein, Samuel Hyman
38 Seigel Street, Brooklyn, N. Y.
Brunswick, Jerome Alfred
119 East 83 Street, New York City
Buccino, Raphael Joseph
307 Nicol Street, Bridgeport, Conn.

- Canter, Herbert B.
1890 Seventh Avenue, New York City
- Cantor, Louis Harry
340 Pleasant Street, Gardner, Mass.
- Cappelli, Antoinette
2322 Belmont Avenue, New York City
- Chary, Philip
70 Grafton Street, Brooklyn, N. Y.
- Chryn, Julius Stephen
1565 Grand Concourse, New York City
- Cipes, Leo R.
694 Melrose Avenue, New York City
- Clericuzio, Thomas
517 Lincoln Street, Union City, N. J.
- Cody, Catherine Elizabeth
94 Main Street, Canaan, Conn.
- Cohen, Abraham Irving
569 Van Sicklen Avenue, Brooklyn, N. Y.
- Cohen, Philip
80 Fifth Avenue, Long Branch, N. J.
- Cohn, George
264 Hamilton Avenue, Paterson, N. J.
- Connors, Edward Dennis
205 Rockwell Avenue, Long Branch, N. J.
- Cooper, Jack
3885 Bedford Avenue, Brooklyn, N. Y.
- Coronato, Joseph James
168 Hope Avenue, Rosebank, S. I.
- Coyen, Arthur Emile
136 Weehawken Street, Union City, N. J.
- Cutler, Samuel Melvin
1265 Spoffard Avenue, New York City
- Deutsch, David
85 Lewis Street, New York City
- Diamond, Joseph
375 Beekman Avenue, New York City
- DiMattina, Bartholomew
226 DeGraw Street, Brooklyn, N. Y.
- DiTolla, Alfred James
370 Hallett Street, Astoria, N. Y.
- Divisek, Frank
433 East 75 Street, New York City
- Drach, Isidore
1931 Walton Avenue, New York City
- Dreyer, Isaac
226 East Broadway, New York City
- Drosness, Benjamin
1580 Eastern Parkway, Brooklyn, N. Y.
- Durfee, Olive
333 Martin Street, San Jose, Cal.
- Ehrlich, Edward
338 Avenue A, Bayonne, N. J.
- Ehrlich, Louis
193 Highland Boulevard, Brooklyn, N. Y.
- Eisen, Nathan
1557 St. Mark's Avenue, Brooklyn, N. Y.
- Fankuchen, Irving Stone
1302 Carroll Street, Brooklyn, N. Y.
- Fein, Ely
150 West 123 Street, New York City
- Feinberg, Harry Isidore
340 Ellery Street, Brooklyn, N. Y.
- Feldman, Boris
2609 Briggs Avenue, New York City
- Feller, Henry
1886 Douglass Street, Brooklyn, N. Y.
- Fisher, Joseph H.
2238 Morris Avenue, New York City
- Fox, Louis Asir
24-10th Street, West New York, N. J.
- Friedbauer, Lewis M.
203 Park Avenue, Passaic, N. J.
- Friedman, Louis
72 East 110 Street, New York City
- Friedman, Philip
312 East 8 Street, New York City
- Fuchs, Isidore
604 East 9 Street, New York City
- Garfinkle, Howard
48 East 15 Street, Bayonne, N. J.
- Gavlas, Frank E.
1476 E. Main Street, Bridgeport, Conn.
- Giannunzio, Vincent James
Box 190, Mamaroneck, N. Y.
- Gillette, Samuel
85 Madison Avenue, Bridgeport, Conn.
- Ginsberg, David
91 Woodruff Avenue, Brooklyn, N. Y.
- Glickman, Osias
349 So. 4 Street, Brooklyn, N. Y.
- Gluckman, Mark L.
1164 Rogers Avenue, Brooklyn, N. Y.
- Gold, Charles
510 Marion Street, Brooklyn, N. Y.
- Gold, Herbert
221 East 121 Street, New York City
- Goldberg, Harold T.
1319-50th Street, Brooklyn, N. Y.
- Goldberg, Herbert William
1858 Seventh Avenue, New York City
- Goldberg, Julius
20 Rutgers Place, New York City
- Goldberg, Samuel
213 Seigel Street, Brooklyn, N. Y.
- Goldfarb, Louis
1346 Fulton Avenue, New York City
- Goldin, Frank
312 Van Nostrand Avenue, Jersey City, N. J.
- Goldsmith, Jacob
56 Second Avenue, New York City
- Goldstein, Archie
107-21 117th Street, Richmond Hill, N. Y.
- Goldstein, Isidore Jacob
527 Hinsdale Street, Brooklyn, N. Y.
- Goldstein, William Morris Monticello, N. Y.
- Goliger, Morris
2069-60th Street, Brooklyn, N. Y.

- Gottlieb, Eugene
64½ West 181 Street, New York City
- Gottlieb, Hyman
830 Belmont Avenue, Brooklyn, N. Y.
- Gottlieb, Louis
Tannersville, N. Y.
- Govendy, Morris
219 East 121 Street, New York City
- Gratt, Michael
957 Rogers Place, New York City
- Gray, Donald Arthur
1517 Neilson Street, Utica, N. Y.
- Greek, James
528 Main Street, Union City, N. J.
- Greenberg, Lillian R.
608 Prospect Avenue, New York City
- Greenberg, Morris Milton
58 John Street, New Brunswick, N. J.
- Greenstein, Murray
106 Marcy Place, New York City
- Grosman, Abraham
985 E. Tremont Avenue, New York City
- Grossmann, Nollie
1040 Kelly Street, New York City
- Guisado, Frank Edward
100 Pineapple Street, Brooklyn, N. Y.
- Hall, Charles Dixon
10 Hartwell Street, New Brunswick, N. J.
- Hamburger, Hyman
229 East 103 Street, New York City
- Harris, Joseph
775 East 2 Street, Brooklyn, N. Y.
- Hershkowitz, Leo
1345 Brook Avenue, New York City
- Herzog, Herman Joseph
1208-51st Street, Brooklyn, N. Y.
- Hunt, William Edgar
99 Bedford Road, Pleasantville, N. Y.
- Hurwitz, Abe
222 Van Buren Street, Syracuse, N. Y.
- Isaacs, Irving Louis
1046 East 29 Street, Brooklyn, N. Y.
- Joffe, Abram Edward
350 Belmont Avenue, Paterson, N. J.
- Johnson, Eric P.
211 East 33 Street, New York City
- Kaner, Paul
332 East 18 Street, New York City
- Kantrowitz, Morris
1551 So. Boulevard, New York City
- Karasick, Abraham
55 Cuba Place, Rochester, N. Y.
- Karmazin, Stanley
1355 East 9 Street, Brooklyn, N. Y.
- Kasday, Moe
97-52 Corona Avenue, Corona, N. Y.
- Katz, Benjamin
1956-69th Street, Brooklyn, N. Y.
- Katzman, Louis
381 Grand Street, New York City
- Kaufman, Howard
1129 Vyse Avenue, New York City
- Kessler, Nathan
26 Fayette Street, Brooklyn, N. Y.
- Kirschstein, Nathan
100 Keap Street, Brooklyn, N. Y.
- Kitts, Edward Angermire
Richfield Springs, N. Y.
- Klappert, Samuel
790 Riverside Drive, New York City
- Koch, Leo Bernard
219 East 28 Street, New York City
- Kornfeld, Abraham
1606 Park Place, Brooklyn, N. Y.
- Koslosky, Henry
366 Kingston Avenue, Brooklyn, N. Y.
- Koslow, Nathan Robert
1948 Prospect Avenue, New York City
- Kossove, Sidney
1267-40th Street, Brooklyn, N. Y.
- Krichev, Barney
2160 Bath Avenue, Brooklyn, N. Y.
- Kroe, Andrew
835 Beck Street, New York City
- Laites, Morris
491 Main Street, Ansonia, Conn.
- Lang, Albert Béla
767 East 156 Street, New York City
- LaSala, Charles
782 Madison Street, Brooklyn, N. Y.
- Lasky, Reuben
59 Herman Street, Rochester, N. Y.
- Lauri, Michael Aloysius
180 Hooker Place, Port Richmond, N. Y.
- Lazarowitz, Mae
382 Georgia Avenue, Brooklyn, N. Y.
- Leader, Louis M.
145 North Street, Bennington, Vt.
- Lebediger, Samuel
412-420 Pulaski Street, Brooklyn, N. Y.
- Lee, Anderson F.
2324 Eighth Avenue, New York City
- Lefkowitz, Sidney
109 So. 51 Street, Corona, N. Y.
- Levine, Anna Estelle
Woodridge, N. Y.
- Levine, Sophie
Ashley Falls, Mass.
- Lerner, Isidore
1723-77th Street, Brooklyn, N. Y.
- Levitt, Solomon
180 Varet Street, Brooklyn, N. Y.
- Levy, Louis
512 Blum Street, Union Hill, N. J.
- Liebowitz, David
280 So. 3 Street, Brooklyn, N. Y.
- Lipkin, Alexander
774 Park Avenue, W. New York, N. J.
- Lipschetz, Simon
185 Ferry Street, New Haven, Conn.

- Lipschutz, Sara K.
73 So. 9 Street, Brooklyn, N. Y.
- Lipsett, Harold
549 West 163 Street, New York City
- Litsky, Max
72 Central Street, Ansonia, Conn.
- Loomis, George Meade
371 Park Street, Fulton, N. Y.
- Lopez de Victoria, Jose
965 Lexington Avenue, New York City
- Lucrezia, Vincent Nicholas
150 Elm Street, Yonkers, N. Y.
- Lupinacci, Joseph
327 East 113 Street, New York City
- Lyons, James
Kill Avenue, Butler, N. J.
- McGill, James Francis
611 East 83 Street, New York City
- McGuire, Michael Leo
1120 Neilson Street, Utica, N. Y.
- Maline, John
130 Essex Street, Jersey City, N. J.
- Malorofsky, David
23 Suffolk Street, New York City
- Mandel, Jacob
41 Forsyth Street, New York City
- Mandel, Nathan
400 East Houston Street, New York City
- Manheimer, Raymond Benjamin
300 West 108 Street, New York City
- Marcus, Sam
10 Meadow Street, Kingston, N. Y.
- Margolis, Joseph Samuel
1740 Weeks Avenue, New York City
- Margulies, Harry Philip
26 Bergen Avenue, Jersey City, N. J.
- Martin, Naomi Amy
Westhampton Beach, N. Y.
- Mauro, Thomas Joseph
111 Park Avenue, Elberon, N. J.
- Mazilauskas, Edward Thomas
58 Hotchkiss Street, Naugatuck, Conn.
- Mazlish, David J.
137a DeKalb Avenue, Jersey City, N. J.
- Millman, Morris
5624 Eighth Avenue, Brooklyn, N. Y.
- Mininberg, Meyer
863 Beck Street, New York City
- Mintzer, Morris Louis
177 Intervale Avenue, Burlington, Vt.
- Mistretta, Peter
1715-73rd Street, Brooklyn, N. Y.
- Moore, Ammon, Maurice
1135 E. Terrell Avenue, Ft. Worth, Texas
- Mouber, Isaac
59 East 118 Street, New York City
- Murger, William
418 Georgia Avenue, Brooklyn, N. Y.
- Nelson, Isaac
Yarmouth, Nova Scotia
- Newberger, Max
568 So. 19 Street, Newark, N. J.
- Newman, Irving
369 Second Street, Brooklyn, N. Y.
- Nigrine, Nissim H.
1465 Fifth Avenue, New York City
- O'Brien, Samuel Graham
14 Smith Street, Portchester, N. Y.
- O'Connor, Joseph John
485 Monroe Avenue, Elizabeth, N. J.
- Oring, Joseph David
461 East 144 Street, New York City
- Osterweil, Jacob
12 West 113 Street, New York City
- Padwisocka, Louis K.
412 Hegeman Avenue, Brooklyn, N. Y.
- Papazian, Garabed Simon
160 East 62 Street, New York City
- Pelletiria, Salvatore Anthony
629 Broadway, Brooklyn, N. Y.
- Perman, Morris
948 Union Avenue, New York City
- Perrine, Peter William
6408-15th Avenue, Brooklyn, N. Y.
- Peshkin, Gershon
33 Guilden Street, New Brunswick, N. J.
- Pillitteri, Frances
1702 Lexington Avenue, New York City
- Petruskie, Anthony Vincent
Plandome, Long Island, N. Y.
- Pitts, William Milton
137 West 142 Street, New York City
- Pospisil, Anton Joseph
30-70-32nd Street, Astoria, N. Y.
- Prestia, Ignatius
167 Graham Avenue, Brooklyn, N. Y.
- Rabinowitz, David
716 East 5th Street, New York City
- Rabinowitz, Jacob
57 Shpoler Avenue, Corona, N. Y.
- Rabinowitz, Rubin Louis
118 Oak Street, Hazelton, Pa.
- Raphael, Israel
2363 Valentine Avenue, New York City
- Reese, William Lockett
262 East Broadway, New York City
- Reinstein, Leon
97 Lee Avenue, Brooklyn, N. Y.
- Resner, Israel
710 East 5 Street, New York City
- Rheinstein, Harry Jacob
163 East 94 Street, Brooklyn, N. Y.
- Richman, Louis
187 Grafton Street, Brooklyn, N. Y.
- Rimer, Max
320 East 91 Street, New York City
- Risberg, Leo Joseph
118 West 109 Street, New York City

- Rodman, Morris
43 Grafton Street, Brooklyn N. Y.
- Romano, Joseph George
15 West Henry Street, Stamford, Conn.
- Rosenberg, Manuel Morton
314 Wilkins Street, Rochester, N. Y.
- Rosenberg, Max
875 Brooklyn Avenue, Brooklyn, N. Y.
- Rosenblatt, Samuel Jack
88 East 111 Street, New York City
- Rosenfield, William
6 West 98 Street, New York City
- Rosenfeld, Philip
69 Canonbury Road, Jamaica, N. Y.
- Rosenstein, Hyman
1153-41st Street, Brooklyn, N. Y.
- Sacco, Leonard Gregory
123 So. 7 Avenue, Long Branch, N. J.
- Salem, Louis Harry
3705-64th Street, Woodside, N. Y.
- Salutsky, Isidore
70 Wilson Street, Brooklyn, N. Y.
- Sasse, Henry Alois, Jr.
315 East 58 Street, New York City
- Schine, Samuel
697 Pembroke Street, Bridgeport, Conn.
- Schwartz, Benjamin
217 Bristol Street, Brooklyn, N. Y.
- Schwartz, Jack
329 Graham Avenue, Brooklyn, N. Y.
- Scilipoti, Ludwig William
28 Gibson Avenue, Great Kills, L. I.
- Seaman, Edwin Crawford
449 First Street, Newburgh, N. Y.
- Segal, Norman
932 Kelly Street, New York City
- Seider, Solomon
86 West 183 Street, New York City
- Seiler, Albert
137 Seventh Avenue, Brooklyn, N. Y.
- Sepkaski, Paul
65 Canal Street, Ansonia, Conn.
- Sewell, Milton Dulany
117 Palisade Avenue, Jersey City, N. J.
- Shenit, Harry
347 Bradford Street, Brooklyn, N. Y.
- Sherman, Irving
318 East 100 Street, New York City
- Siegel, Edward
63 Forsyth Street, New York City
- Silberquit, Paul
217 Pennsylvania Avenue, Brooklyn, N. Y.
- Silver, Samuel Robert
2077-60th Street, Brooklyn, N. Y.
- Silverman, Jack
177 East 100 Street, New York City
- Silverman, Jacob
258 Palisade Avenue, Jersey City, N. J.
- Simrin, Leonard
Greenfield, N. Y.
- Sinakin, Richard Max
404 Palisade Avenue, Jersey City, N. J.
- Sirkus, John
640 Blake Avenue, Brooklyn, N. Y.
- Smith, Lawrence
2072-61st Street, Brooklyn, N. Y.
- Smith, Robert Reuben
2072-61st Street, Brooklyn, N. Y.
- Snyder, Rolland Stanley
2543 Marian Avenue, New York City
- Sobell, Martin L.
1015 Surf Avenue, Coney Island, N. Y.
- Soriano, Charles
51 Thompson Street, Raritan, N. J.
- Spellman, Glenn Joseph
2537 Valentine Avenue, New York City
- Spevack, Samuel William
369 New Street, Perth Amboy, N. J.
- Stahl, Charles William
204 Delancey Street, New York City
- Steele, Nathan
483 East 170 Street, New York City
- Steinfeld, William Morris
81 Avenue C, New York City
- Stelmah, Samuel
1687 Vyse Avenue, New York City
- Stenger, Harry Charles
1862 Grove Street, Brooklyn, N. Y.
- Stitelman, Hyman
1712 Bath Avenue, Brooklyn, N. Y.
- Strauss, Joseph
130 West 195 Street, New York City
- Sudakow, Morris
111 Henwood Street, New York City
- Suznow, Isidor
24 East 99 Street, New York City
- Sukenik, Harry
1848 Monroe Avenue, New York City
- Tammara, Joseph Irvine
2 Rockledge Avenue, Ossining, N. Y.
- Tanklefsky, Arthur
1219 Gilbert Place, New York City
- Taubert, Charles Frederick
604 No. Locust St. Hazelton, Pa.
- Teitelbaum, Bertha
195 Broad Street, Stapleton, N. Y.
- Thorner, Isidor
90 Morton Street, Brooklyn, N. Y.
- Tittler, Murray
2142 Atlantic Avenue, Brooklyn, N. Y.
- Trapani, Salvator
8657 Bay 16 Street, Brooklyn, N. Y.
- Trauner, Charles
201 East 58 Street, New York City
- Tuvim, Abraham Abby
7 West 112 Street, New York City
- Valenti, James Joseph
551 Second Avenue, New York City

- Venickoff, Solomon
911 Longwood Avenue, New York City
- Volkovitzky, Benzion K.
364 Palisade Avenue, Jersey City, N. J.
- Waldinger, Leo
150 Keap Street, Brooklyn, N. Y.
- Waldman, Sidney
34 No. Grant Street, Wilkes-Barre, Pa.
- Wandruff, Benjamin
1348 Clinton Avenue, New York City
- Weltman, Louise
486 East 138 Street, New York City
- Weisswasser, David
1457 Eastern Parkway, Brooklyn, N. Y.
- Wexler, David
614 East 11 Street, New York City
- Wiener, Max
35 Clinton Street, Paterson, N. J.
- Wilensky, Morris
52 Stephen Street, New Haven, Conn.
- Winer, Russell
442 East 9 Street, New York City
- Wininger, Samuel
2226 Adams Place, New York City
- Wolzing, Nathan
154 So. 3 Street, Brooklyn, N. Y.
- Youngstein, Elias
403 Manhattan Avenue, New York City
- Zalowitz, Morris Daniel
86 Marshall Street, Elizabeth, N. J.
- Zelnick, Isidore
321 East 12 Street, New York City
- Zimmerman, William
108 West 90 Street, New York City
- Zwilling, Ignatz
801 Freeman Street, New York City
(283)

GRADUATES IN PHARMACY, OCTOBER 5, 1926

- Adrezin, Edward H.
405 Hinsdale Street, Brooklyn, N. Y.
- Berg, Henry
169 East 105th Street, New York, N. Y.
- Brooks, Solomon
2131 Ocean Avenue, Brooklyn, N. Y.
- Cutler, George
1268 Spofford Avenue, New York, N. Y.
- De Cesare, Nicholas
236 West 10th Street, New York, N. Y.
- Durst, Benjamin
264 East 2nd Street, New York, N. Y.
- Edlich, Adolph A.
361 East 50th Street, New York, N. Y.
- Eglichen, Nathan
1604 Madison Avenue, New York, N. Y.
- Emdin, Loftus Edward, Jr.
1556 Howard Avenue, Utica, N. Y.
- Essner, Isidore
382 South 3rd Street, Brooklyn, N. Y.
- Eyskens, Leo Joseph
618 Washington Street, Hoboken, N. J.
- Florin, Sidney
622 Ocean Parkway, Brooklyn, N. Y.
- Friedman, Gustav
1054 Avenue C, Bayonne, N. J.
- Goldblatt, Harold
768 Fox Street, New York, N. Y.
- Granata, James Innocenzo
59 Bowers Street, Jersey City, N. J.
- Hawkins, Ralph Abbey
134 West 133rd Street, New York, N. Y.
- Jacobson, Louis Malcolm
43 Sylvan Avenue, New Haven, Conn.
- Langheinz, Louis E. G.
857 Elizabeth Avenue, Elizabeth, N. J.
- Levine, Marguerite A.
5002-16th Avenue, Brooklyn, N. Y.
- Megibow, Joseph
501 Palisade Avenue, West New York, N. J.
- Miller, Henry Mesick
28 Ibis Street, Forest Hills, N. Y.
- Nava, Dominick
226 Carroll Street, Brooklyn, N. Y.
- Newman, Barnet
90 Grafton Street, Brooklyn, N. Y.
- Perrella, William Camillo
2105 Beverly Road, Brooklyn, N. Y.
- Rippner, Philip
18 Lawrence Street, So. Norwalk, Conn.
- Royal, Solomon
386 Hillsdale Avenue, Jamaica, N. Y.
- Schneider, William Edward
830 Saratoga Avenue, Brooklyn, N. Y.
- Siegle, Irving Maurice
520 Broadway, Bayonne, N. J.
- Singer, Abraham
1424 Bryant Avenue, New York, N. Y.
- Sowersby, Winford Earl
66 West 1st Street, Mt. Vernon, N. Y.
- Spector, George
4147 Arthington Street, Chicago, Ill.
- Tewksbury, Roland Humphrey
99 Seventh Street, Bangor, Me.
- Waxman, Isaac
112 Goerck Street, New York, N. Y.
- Zeichner, Isadore
226 Adam Street, Hoboken, N. J.
(34)

REGISTER OF STUDENTS, SESSION OF 1926-1927

SENIOR UNIVERSITY CLASS

Dimler, Marguerite Caroline
104 Ninth Street, Hoboken, N. J.
Gutchin, Samuel
66 Powell Street, Brooklyn, N. Y.
Hauck, Rudolf Otto
3511 34th Street, Jackson Heights, N. Y.
Levin, Fred 77-12th Avenue, Paterson, N. J.
Lieberman, Samuel Solomon
17 Attorney Street, New York, N. Y.
Macсата, William J.
540 West 189th Street, New York, N. Y.
Rang, Irving Franklin
697 Halsey Street, Brooklyn, N. Y.
Trumpler, Philip
681 East 221st Street, New York, N. Y.

(8)

JUNIOR UNIVERSITY CLASS

Adams, Joseph Edison
63 Hopkins Avenue, Jersey City, N. J.
Anzelmi, Edward
461 Rogers Avenue, Brooklyn, N. Y.
Bevacqua, Alfred
369 Third Street, Jersey City, N. J.
Brunswick, Jerome A.
41 West 96 Street, New York, N. Y.
Buccino, Raphael Joseph
307 Nichol Street, Bridgeport, Conn.
Cody, Catherine Elizabeth
94 Main Street, New Canaan, Conn.
Goldberg, Samuel
213-15 Seigel Street, Brooklyn, N. Y.
Guisado, Frank Edward
29 Willow Street, Brooklyn, N. Y.
Johnson, Eric P.
211 East 33 Street, New York, N. Y.
Kitts, Edward Angermire
Richfield Springs, New York, N. Y.
Malorofsky, David
23 Suffolk Street, New York, N. Y.
Moore, Ammon Maurice
203 West 138 Street, New York, N. Y.
Mora, Mrs. Olive Durfee
17 West 121 Street, New York, N. Y.
O'Brien, Samuel Graham
14 Smith Street, Pt. Chester, N. Y.
Pokorny, Frank Joseph
52-15 Hospel Street, Elmhurst, N. Y.
Pospisil, Anton Joseph
467 Third Avenue, Astoria, N. Y.
Zupp, Edmund Henry
6 Pine Street, Ellenville, N. Y.

(17)

SOPHOMORE UNIVERSITY CLASS

Abramowitz, Abraham
60 East Third Street, New York, N. Y.
Achilson, Peter Lazarus
2380-8th Avenue, New York City
Adler, Alan
61 East 3 Street, New York, N. Y.
Amatucci, Laura
1984-84th Street, Brooklyn, N. Y.
Baiczer, Abraham Irving
1072 Union Avenue, New York, N. Y.
Becker, Herbert Chester
777 Woodward Avenue, Brooklyn, N. Y.
Beckerman, Sidney
1697 Lexington Avenue, New York, N. Y.
Brooks, Vernon Hazen
25 Maple Place, Port Chester, N. Y.
Burch, Egbert A. St. Georges, Bermuda
Cohen, George 551 Boulevard, Bayonne, N. J.
Cohen, Irving Samuel
1121 Tinton Avenue, New York, N. Y.
Cohen, Morris
77 Madison Street, New York, N. Y.
Cohen, Samuel
2212 Surf Avenue, Brooklyn, N. Y.
Dick, Lester Colby
98 Division Street, Keyport, N. J.
Drucker, David M.
199 Forsyth Street, New York, N. Y.
Dubinsky, Isidore
166 Avenue C, New York, N. Y.
Einhorn, Charles
180 Riverdale Avenue, Brooklyn, N. Y.
Eisenberg, Joseph
592 West Side Avenue, Jersey City, N. J.
Epstein, Aaron
576 Chester Street, Brooklyn, N. Y.
Epstein, George
105 Nott Avenue, Long Island City, N. Y.
Fanelli, Domenick
547 Fourth Avenue, Brooklyn, N. Y.
Gattuso, Charles
22 Rivington Street, New York, N. Y.
Giordano, Herman
376 Frankfort Street, Orange, N. J.
Giovannelli, Dominic
1263 Herkimer Street, Brooklyn, N. Y.
Givens, Horace T. F.
6 Cottage Place, Freehold, N. J.
Goldberg, Max
1368 Myrtle Avenue, Brooklyn, N. Y.
Golden, Jonas
11a Louis Place, Brooklyn, N. Y.
Goldman, Harry
474 Warwick Street, Brooklyn, N. Y.

- Grebel, Pincus
 51 Forsyth Street, New York, N. Y.
 Gregorius, Ruth Anna
 Central Ave. and Rockaway Turnpike,
 Lawrence, N. Y.
 Gross, Samuel
 424 East 5th Street, New York, N. Y.
 Gussow, Charles Meyer
 2295 Morris Avenue, New York, N. Y.
 Herman, Milton
 1464 Seabury Place, New York, N. Y.
 Hodes, Julius
 2362 Ryer Avenue, New York, N. Y.
 Horin, Maynard
 69 Carll Street, Jamaica, N. Y.
 Horowitz, Simon
 127 E. Broadway, New York, N. Y.
 Hurwitz, Morris Herman
 24 Ashford Street, Hartford, Conn.
 Johnson, Cornelius Lee
 828 Corgie Street, Cape May, N. J.
 Kantrowitz, Israel
 195 Madison Street, New York, N. Y.
 Kaplan, Frances Mildred
 Sharon Valley, Conn.
 Katz, Sidney
 211 East 105 Street, New York, N. Y.
 Katzowitz, Morris
 156 So. 8th Street, Brooklyn, N. Y.
 Keller, Joseph
 3258-25th Street, Jackson Heights, L. I.
 Kibbe, August Geissel
 162 Egbert Avenue, W. New Brighton, S. I.
 Klein, Samuel
 340 East 4th Street, New York, N. Y.
 LaMacchia, Mildred Mary
 162 Day Street, New Haven, Conn.
 Lauri, Victor
 210 DeGraw Avenue, Brooklyn, N. Y.
 Lebensart, Manning
 264 West 25 Street, New York, N. Y.
 Leibowitz, Max
 423 Tompkins Avenue, Brooklyn, N. Y.
 Levinsohn, Arthur
 26 So. Bridge Street, Poughkeepsie, N. Y.
 Levy, Gussie Florence
 512-36th Street, Town of Union, N. J.
 Lippe, Abraham Alfred
 916 Blake Avenue, Brooklyn, N. Y.
 Malinoff, Elias Alexander
 1640 Washington Avenue, New York, N. Y.
 Metlitz, Henry
 Nannet, N. Y.
 Michaels, Jacob
 1433 Bryant Avenue, New York, N. Y.
 Miller, Isidore Henry
 337 Ridge Avenue, Lakewood, N. J.
 Montemurro, Thomas
 531-42nd Street, Union City, N. J.
 Neuman, Harry
 215 Lawrence Place, Paterson, N. J.
 Palmera, Jerome John
 274 Third Street, Jersey City, N. J.
 Paulonis, Edward Peter
 1357 Bushwick Avenue, Brooklyn, N. Y.
 Porte, Solomon
 2054-63rd Street, Brooklyn, N. Y.
 Pucci, Guido
 1233 Third Avenue, No. Bergen, N. J.
 Rifkin, Isidor
 2026 Douglass Street, Brooklyn, N. Y.
 Rochelson, George
 1416 Stebbins Avenue, New York, N. Y.
 Rocker, Philip
 120 East 2 Street, New York, N. Y.
 Rossi, Filomena Florence
 30 MacDougal Street, New York, N. Y.
 Saldinger, Karl
 554 DeKalb Avenue, Brooklyn, N. Y.
 Schimel, Moses
 3045 Ocean Parkway, Brooklyn, N. Y.
 Schlagel, Charles Jacob
 18 Oak Street, Beacon, N. Y.
 Schmilowitz, Samuel
 170-23 171st Street, Jamaica, L. I.
 Schmurok, Leon
 19 Sterling Place, Edgewater, N. J.
 Schopmann, William Henry
 103 Grace Street, Jersey City, N. J.
 Schultz, Joseph
 990 Aldus Street, New York, N. Y.
 Schutzbank, Victor
 R. F. D. No. 3 Lakewood, N. J.
 Schwartz, Max
 1629 Lexington Avenue, New York, N. Y.
 Scowcroft, Ronald
 582 Craig Avenue, Tottenville, N. Y.
 Seng, John Warren
 107 Carroll Place, New Brunswick, N. J.
 Shapiro, Harry
 176 Riverdale Avenue, Brooklyn, N. Y.
 Siegel, Isidore
 203 East 96th Street, New York, N. Y.
 Simon, Harry
 28 Gouverneur Street, New York, N. Y.
 Simon, Isidore Merenholz
 366 Hamilton Avenue, Paterson, N. J.
 Simone, Catharine Bellina
 Croton-on-Hudson, N. Y.
 Sobel, Joseph
 194 East Main Street, Bridgeport, Conn.
 Spielman, Samuel
 981 Simpson Street, New York, N. Y.
 Stauber, Robert August
 R. F. D. No. 15 Groton, N. Y.
 Steinberg, Abraham
 620 Riverdale Avenue, Brooklyn, N. Y.

Sternberg, Morris
 904 East 95 Street, Brooklyn, N. Y.
 Stock, George Thomas Pawling, N. Y.
 Thierer, Lionel Louis
 1189 Sheridan Avenue, New York, N. Y.
 Tiesler, Adolph Edward
 93 Rebecca Avenue, Pleasantville, N. Y.
 Tisch, Leo
 1411 Madison Avenue, New York, N. Y.
 Topilow, Jacob
 155 West 29th Street, Bayonne, N. J.
 Tuchband, Louis
 Arlington Avenue, Bergenfield, N. J.
 Warren, Cameron Clyde
 30 Walkill Avenue, Middletown, N. Y.
 Weisman, Isadore
 37 Kingsbury Street, Waterbury, Conn.
 Weiss, Harry
 1447 Longfellow Avenue, New York, N. Y.
 Zabner, Jacob
 954 Hoe Avenue, New York, N. Y.
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FRESHMAN UNIVERSITY CLASS

Aaronson, Irving
 100 Humboldt Street, Brooklyn, N. Y.
 Alderman, George Joseph
 214 New Main Street, Yonkers, N. Y.
 Anderson, Arthur Gustave
 4 Travers Avenue, Mamaroneck, N. Y.
 Appelbaum, Joseph
 147 Schenectady Avenue, Brooklyn, N. Y.
 Bauso, Felix
 2400 Myrtle Avenue, Brooklyn, N. Y.
 Beck, Louis Cresskill, N. J.
 Berry, Isadore
 76 Morgan Street, Springfield, Mass.
 Berson, Jack Jerome
 333 Pershing Avenue, Carteret, N. J.
 Biberfeld, Abraham Louis
 150-17th Street, West New York, N. J.
 Britton, John T.
 479 Broadway, Long Branch, N. J.
 Brown, Gustave Harold
 884 Riverside Drive, New York, N. Y.
 Bulda, Frank
 332 East 70th Street, New York, N. Y.
 Caniparoli, Olga
 2529 Cambreleng Avenue, New York, N. Y.
 Caprio, Ralph
 140 Parker Street, Newark, N. J.
 Carbonaro, John
 2 McMaster Street, Auburn, N. Y.
 Carnot, Edward Joseph
 850 Madison Avenue, New York, N. Y.
 Cherr, George
 1703 Washington Avenue, New York, N. Y.
 Cohen, Jacob
 291 E. Fourth Street, New York, N. Y.
 Coleman, John William
 227 Duncan Avenue, Jersey City, N. J.
 Costarella, Renato
 325 Bleecker Street, New York, N. Y.
 Criscuolo, Andrew
 180 Chestnut Street, New Haven, Conn.
 D'Avella, Bernadino Johnson
 167 Parker Street, Newark, N. J.
 Davenport, Renald Sweet Valley, Pa.
 Dayharsh, Carroll Wells
 105 Kensington Place, Syracuse, N. Y.
 DelVecchio, Henry William
 1366-73rd Street, Brooklyn, N. Y.
 Desotnek, William
 6 Pleasant Street, Newport, R. I.
 Donnelly, Frank Henry
 119 North Fulton Avenue, Mt. Vernon, N. Y.
 Edelman, Reuben Louis
 26 Cormack Court, Babylon, N. Y.
 Edelstein, Victor Hugo
 62 East 94th Street, New York, N. Y.
 Edgars, Norman Kenneth
 81 Hillside Avenue, Tenafly, N. J.
 Ellena, Aldo Joseph
 180 So. Bergenline Avenue, Union City, N. J.
 Erdtrachter, Jules
 229 Fifth Street, New York, N. Y.
 Fabrikant, Lawrence
 1986 Clinton Avenue, Brooklyn, N. Y.
 Falk, Herbert Bernard
 709 East 24th Street, Paterson, N. J.
 Fishbein, Isadore
 70 Carroll Street, Paterson, N. J.
 Fisher, Jennie
 314 Bay 10 Street, Brooklyn, N. Y.
 Fisher, Sidney Alexander
 124 West 115 Street, New York, N. Y.
 Foley, Frank Aloysius
 61 Prescott Avenue, Grant City, S. I.
 Freedman, Ray Morris
 7 West Glen Street, Glen Cove, N. Y.
 Fries, Harry
 1049 East 13 Street, Brooklyn, N. Y.
 Ganeless, Percy
 99 No. Main Street, Liberty, N. Y.
 Garbaden, George Howard
 111 Linden Avenue, Middletown, N. Y.
 Gerbino, Nicholas Joseph
 151 First Avenue, New York, N. Y.
 Gerken, Frederick
 133-08 Rockaway Blvd., So. Ozone Pk., B. I.
 Glantz, Milton
 355 Second Avenue, New York, N. Y.
 Glickfield, Peter Joel
 14 Cecil Avenue, Glen Cove, N. Y.
 Golub, Morris Eugene
 105 Wilbraham Road, E. Longmeadow, Mass.
 Gorenberg, David
 690 East 158th Street, New York, N. Y.

- Grasser, George Joseph
22 Florida Avenue, Arrochar, S. I.
- Greenfield, Joseph
222 East 124 Street, New York, N. Y.
- Groves, Reginald Doyle
475 Spooner Avenue, Plainfield, N. J.
- Guagliardo, Vincent Francis
28 Harrison Avenue, Monson, Mass.
- Gulker, Jacob Henry
174 Clinton Street, New York, N. Y.
- Guss, Isidore Edward
1425 Eastern Parkway, Brooklyn, N. Y.
- Hackman, Clifford W.
212 Brinley Avenue, Bradley Beach, N. J.
- Hands, Quentin Roosevelt
2533 Seventh Avenue, New York, N. Y.
- Harrison, Benjamin
197 Floyd Street, Brooklyn, N. Y.
- Horewitz, Alexander
214 Elm Street, Butler, Pa.
- Hoyte, Lewis Prescod
169 St. Nicholas Avenue, New York, N. Y.
c/o Haynes
- Hubbard, Earl Edmund
42 Second Avenue, Bay Shore, N. Y.
- Ingegno, Henry Peter
521 Atlantic Avenue, Brooklyn, N. Y.
- Iozzia, Theresa
126 Beech Street, Paterson, N. J.
- Ironson, Hyman
1183 Grand Concourse, New York, N. Y.
- Isgar, William
95 Barrett Street, Brooklyn, N. Y.
- James, Edith Genevieve
588 Lenox Avenue, New York, N. Y.
- Johnson, James Benjamin
170 Orange Street, Kingston, Jamaica,
B. W. I.
- Kadish, Frank Bernard
21 So. Dean Street, Englewood, N. J.
- Kaplan, Aaron
93 Granite Street, Brooklyn, N. Y.
- Kaplan, Herbert Benjamin
185 Bergen Avenue, Jersey City, N. J.
- Kerner, Emanuel Matthew
1968-68th Street, Brooklyn, N. Y.
- Kolk, Martin I.
1805-49th Street, Brooklyn, N. Y.
- Landry, August
1409 Edwards Avenue, New York, N. Y.
- LaPlaca, Francis A.
316 Monroe Street, Hoboken, N. J.
- Lauria, Anthony
784 West Side Avenue, Jersey City, N. J.
- Lawlor, Charles Lloyd
45 Chrome Avenue, Carteret, N. J.
- Lawrence, James Elliot
605 No. Boyd Street, Florence, S. C.
- Levy, Alexander
556 Ashford Street, Brooklyn, N. Y.
- Levy, Julian S.
436 Eastern Parkway, Brooklyn, N. Y.
- Lipkowitz, Irving Myron
143 Van Buren Street, Brooklyn, N. Y.
- Lombardi, Julius Dominick
150 South 9th Avenue, Mt. Vernon, N. Y.
- LoRusso, Joseph Franklyn
1883 West 13th Street, Brooklyn, N. Y.
- Lubin, Abraham Allan
327 Franklin Avenue, Scranton, Pa.
- Malament, Louis
316 So. Fourth Street, Brooklyn, N. Y.
- Malkin, Max 75 Linden Street, Passaic, N. J.
- Mallon, Milton J.
372 Snediker Avenue, Brooklyn, N. Y.
- Mannberger, Charles Richard
139 Fourth Avenue, Pelham, N. Y.
- Marano, Anthony Mario
1368-69th Street, Brooklyn, N. Y.
- Margolies, Raymond Nathan
119 Lackawanna Avenue, Olyphant, Pa.
- Matuch, William Paul
123 Park Avenue, Hoboken, N. J.
- Megibow, Louis
543-13th Street, W. New York, N. J.
- Miceli, Anthony Victor
273 Ninth Avenue, New York, N. Y.
- Mirkin, Samuel
101 So. Third Street, Brooklyn, N. Y.
- Molbegat, Abner Irving
746 East 2nd Street, Brooklyn, N. Y.
- Montesano, Benjamin
9 Green Street, Paterson, N. J.
- Novak, Leon
1081 East 12th Street, Brooklyn, N. Y.
- Oaklander, Isidore
1239 Simpson Street, New York, N. Y.
- Paisley, James Franklin
112 Hawxhairst Avenue, Weehawken, N. J.
- Patrizio, Silvio
108-21 Union Hall Street, Jamaica, N. Y.
- Pekarsky, Benjamin
1965 Bryant Avenue, New York, N. Y.
- Pitchinick, Bernard
1737 Pitkin Avenue, Brooklyn, N. Y.
- Race, Clarence Karst
45 Third Avenue, Bay Shore, L. I.
- Reale, Victor Anthony
1569-78th Street, Brooklyn, N. Y.
- Reichman, Frances
648 Faile Street, New York, N. Y.
- Robinson, Abraham
201 Pulaski Street, Brooklyn, N. Y.
- Rosenberg, Abraham
4 Hinman Street, Middle Village, N. Y.
- Rosenberg, Isidor
197 Tenth Street, Long Island City, N. Y.

Rubenstein, Louis J.
64 Hinsdale Street, Brooklyn, N. Y.

Savarese, August
588 Hamilton Avenue, No. Bergen, N. J.

Schleider, Meyer K.
37 West 48 Street, Bayonne, N. J.

Schmid, Frederick William
Hillsdale Avenue, Hillsdale, N. J.

Schubert, Georgianna Agnes
444 North Avenue, Dunellen, N. J.

Schuchman, David
210 Foster Avenue, New York, N. Y.

Seitzman, Max
193 Howe Avenue, Passaic, N. J.

Skasko, Stephen
or Fairfield Avenue, Danbury, Conn.

Soracco, Frank
15 South Main Street, Liberty, N. Y.

Sorensen, Harry C.
517 East 26 Street, Brooklyn, N. Y.

Spallucci, Michael
516 Wheatland Avenue, Bound Brook, N. J.

Sparacio, Carmel John
30 Harrison Avenue, Monson, Mass.

Spitz, Morris Solomon
196 West Broadway, Paterson, N. J.

Sporn, Arthur
431 East 83 Street, New York, N. Y.

Steiner, David
336 East 87 Street, New York, N. Y.

Stopen, Theodore
406 East 70 Street, New York, N. Y.

Sugarman, Benjamin
1 Grauert Place, Weehawken, N. J.

Taylor, Esser Ormsby
431 South 7 Avenue, Mt. Vernon, N. Y.

Teicher, Milton
527 West 135 Street, New York, N. Y.

Teichholz, Bernard
309 Madison Street, Passaic, N. J.

Tinkleman, Nathan
6 Young Street, Poughkeepsie, N. Y.

Valenti, Joseph
714 Communipaw Avenue, Jersey City, N. J.

Wagman, Meyer
1203 Westchester Avenue, New York, N. Y.

Wagner, Harry Frederick
8967-214 Street, Queens Village, N. Y.

Wallace, Winfield Scott, Jr.
196 Highland Avenue, Middletown, N. Y.

Waltz, Hugo Joseph
264 Morris Street, Union City, N. J.

Wang, Sidney
91 Riverdale Avenue, Brooklyn, N. Y.

Weber, Jacob
1059 Glenmore Avenue, Brooklyn, N. Y.

Whitaker, John Dickerson
116 Cheran Street, Bennetsville, S. C.

Wilentz, Alexander
28 W. Palisade Avenue, Englewood, N. J.

Wishner, Jacob
275 So. Fifth Street, Brooklyn, N. Y.

Yukelson, Arthur William
1002 East 167th Street, New York, N. Y.

Zunz, Edward
542-28th Street, Union City, N. J.

Zweig, Arthur
86 West 103rd Street, New York, N. Y.
(140)

SECOND YEAR COLLEGE CLASS

Ackerman, Leo
915 East 15 Street, Brooklyn, N. Y.

Adler, Max Abraham
602 East 11 Street, New York, N. Y.

Allen, Abraham
860 East 161 Street, New York, N. Y.

Alpert, Jacob Joseph
987 Trinity Avenue, New York, N. Y.

Amtman, Rudolph
1450 Clay Avenue, New York, N. Y.

Averbach, Abraham Irwin
64 East 95 Street, Brooklyn, N. Y.

Baer, Philip
1597 Sterling Place, Brooklyn, N. Y.

Balotin, Joel
Ellenville, N. Y.

Becker, Abraham
836 New Lots Avenue, Brooklyn, N. Y.

Berinsky, Abraham
985 E. Tremont Avenue, New York, N. Y.

Berler, Abraham
546 New Jersey Avenue, Brooklyn, N. Y.

Berlin, Henry
338 Broadway, Saratoga Springs, N. Y.

Berman, Louis
33 Avenue A, New York, N. Y.

Bernstein, Philip
766 Ninth Avenue, New York, N. Y.

Bezahler, Charles
814 East 167th Street, New York, N. Y.

Bikofsky, Louis
313 East 170 Street, New York, N. Y.

Bindersky, Morris Louis
1463 St. Mark's Avenue, Brooklyn, N. Y.

Blank, Samuel
234 East Third Street, New York, N. Y.

Blatman, Leo
3510-35th Street, Astoria, L. I.

Blaunstein, Harry
786 East 165 Street, New York, N. Y.

Bloom, Morris
96 Bay 17th Street, Brooklyn, N. Y.

Bogart, Jacob
233 East 110 Street, New York, N. Y.

Bonaccolto, Ada
322 Second Avenue, New York, N. Y.

Bookchin, Benjamin
23 Harvard Court, Brighton Beach, N. Y.

- Botfeld, Louis
 32 Stanwix Street, Brooklyn, N. Y.
 Bousel, Morris
 3120 Hull Avenue, New York, N. Y.
 Brook, Max
 251 Michigan Avenue, Mobile, Ala.
 Brotman, Sam
 147 Stanton Street, New York, N. Y.
 Cernik, Joseph John
 311 East 73 Street, New York, N. Y.
 Chalian, Alexander
 1468 St. Nicholas Avenue, New York, N. Y.
 Cohen, Michael
 602 Pennsylvania Avenue, Brooklyn, N. Y.
 Columbus, Leo
 27 West 91 Street, New York, N. Y.
 Cona, Josephine
 182 So. Centre Street, Orange, N. J.
 Cooper, Israel
 3885 Bedford Avenue, Brooklyn, N. Y.
 Cooper, Julius Sussman
 72 Spring Street, Norwich, Conn.
 Crystal, Adam
 144 Ellery Street, Brooklyn, N. Y.
 Daniel, Blueford Fowler
 Hogansville, Ga.
 DeCicco, Anthony Charles
 260 President Street, Brooklyn, N. Y.
 Deitz, Martin David
 47 So. Main Street, Norwalk, Conn.
 Diamond, Rudolph
 2 East 108 Street, New York, N. Y.
 Dickson, Martin
 262 Seigel Street, Brooklyn, N. Y.
 Dinitz, Charles
 96 McKibbin Street, Brooklyn, N. Y.
 Donenhirsh, Louis
 74-76 Chrystie Street, New York, N. Y.
 Dreizin, Gersh Kushelev Abramov
 1698 Vyse Avenue, New York, N. Y. c/o
 D'Arlon
 Durst, Samuel Isidore
 143 Stanton Street, New York, N. Y.
 Edelman, Benjamin
 1551 Walton Avenue, New York, N. Y.
 Eichenbaum, Samuel
 235 East 103 Street, New York, N. Y.
 Elkind, Joseph Benjamin
 15 Overlook Terrace, Yonkers, N. Y.
 Etkins, Abraham
 2161 Douglass Street, Brooklyn, N. Y.
 Fiertel, Israel David
 151 Suffolk Street, New York, N. Y.
 Fishman, Fannie
 519 Albany Avenue, Brooklyn, N. Y.
 Frager, Joseph Saul
 171 So. William Street, Newburgh, N. Y.
 Frankel, Ezra
 140 Stanton Street, New York, N. Y.
 Friedman, Morris
 50 East 100 Street, New York, N. Y.
 Gellis, Mark Romeo
 Claremont, N. H.
 Gilbert, Charles
 1571 West 11 Street, Brooklyn, N. Y.
 Ginnis, Louis
 1849-66th Street, Brooklyn, N. Y.
 Glassman, Louis
 101 Straight Street, Paterson, N. J.
 Goldenberg, Harry
 404 Georgia Avenue, Brooklyn, N. Y.
 Goldfield, Max
 270 Windsor Avenue, Hartford, Conn.
 Goldman, Pincus
 24 East 99 Street, Apt. 51, New York, N. Y.
 Goldstein, Meyer
 292 Hinsdale Street, Brooklyn, N. Y.
 Goldwasser, Abraham
 555 Bushwick Avenue, Brooklyn, N. Y.
 Gordon, William
 1366 Brook Avenue, New York, N. Y.
 Gorga, Alfonso
 281 Hudson Avenue, Brooklyn, N. Y.
 Gottheil, David Isidore
 1851 Bathgate Avenue, New York, N. Y.
 Greenfarb, Hyman
 1753 Sterling Place, Brooklyn, N. Y.
 Grey, William
 1548 East 4th Street, Brooklyn, N. Y.
 Grogin, James Isidor
 1031-54th Street, Brooklyn, N. Y.
 Haase, Milton
 2123 Tiebout Avenue, New York, N. Y.
 Hacker, Louis
 4219-15th Avenue, Brooklyn, N. Y.
 Haiken, Benjamin
 822 Beck Street, New York, N. Y.
 Hammecker, Horton Martin
 1500 W. Genesee Street, Syracuse, N. Y.
 Heller, Aaron
 1766 Bergen Street, Brooklyn, N. Y.
 Hertzoff, Max
 1503 Charlotte Street, c/o Chassman,
 Palisades Park, N. J.
 Hillinger, Morris William
 2922 LaSalle Avenue, Los Angeles, Cal.
 Honiberg, Aaron David
 254 Windsor Avenue, Hartford, Conn.
 Hurvitz, Mrs. Jennie
 797 Crotona Park North, New York, N. Y.
 Irvin, Vera
 18 West 138 Street, New York, N. Y.
 Isaacs, Melville
 53 West 114 Street, New York, N. Y.
 Isaacson, Harry
 2141 Homecrest Avenue, Brooklyn, N. Y.
 Israel, Max
 120 East 110 Street, New York, N. Y.

- Jospey, Milton
17 Beach 37 Street, Edgemere, N. Y.
- Kanfer, Daniel
140¹/₂ Wilson Street, Brooklyn, N. Y.
- Kaplan, Jonah
691 Van Sicklen Avenue, Brooklyn, N. Y.
- Kaplan, Morris
1420-43rd Street, Brooklyn, N. Y.
- Kaplan, Robert
628 Vermont Street, Brooklyn, N. Y.
- Karp, Solomon
363 Hinsdale Street, Brooklyn, N. Y.
- Karpf, Bernard
1509 Charlotte Street, New York, N. Y.
- Katz, Emanuel
280 Stanton Street, New York, N. Y.
- Katz, Pearl
738-37th Street, Milwaukee, Wis.
- Kaufman, Charles
569 Saratoga Avenue, Brooklyn, N. Y.
- Keegan, James John
Liberty, N. Y.
- Kessler, Harry
2435 Creston Avenue, New York, N. Y.
- Kessler, Selig Ezra
14 East 120 Street, New York, N. Y.
- Kirschner, Charles Israel
159 South 4th Street, Brooklyn, N. Y.
- Klein, Isidore
433 East 138 Street, New York, N. Y.
- Klein, Joseph
720 East 9 Street, New York, N. Y.
- Kolber, Samuel W.
252 Driggs Avenue, Brooklyn, N. Y.
- Koslowsky, Louis Oscar
1967-71st Street, Brooklyn, N. Y.
- Kramer, Paul
1326 Washington Avenue, New York, N. Y.
- Kreisel, Jacob
910 DeKalb Avenue, Brooklyn, N. Y.
- Kritman, Azril
334 East 9th Street, New York, N. Y.
- Krouse, Sidney Morris
1011 Simpson Street, New York, N. Y.
- Krulis, Albert Joseph
32-14-79th Street, Jackson Heights, L. I.
- LaRocca, Michael
65¹/₂ Skillman Avenue, Brooklyn, N. Y.
- Leibson, Samuel
366 Pennsylvania Avenue, Brooklyn, N. Y.
- Leikin, Samuel
73 Conselyea Street, Brooklyn, N. Y.
- Lemberg, Benjamin
159 East 52 Street, New York, N. Y.
- Lercher, Juda
272 East 7th Street, New York, N. Y.
- Leschinsky, Morris
13 Pitt Street, New York, N. Y.
- Levine, Benjamin
364 West 36th Street, New York, N. Y.
- Levinsky, Charles
995 Simpson Street, New York, N. Y.
- Levy, Artrelle
2329 Seventh Avenue, New York, N. Y.
- Lewis, Edgar
2057-78th Street, Brooklyn, N. Y.
- Lewitus, Victor
3459 DeKalb Avenue, New York, N. Y.
- Lippmann, Max
2910 Valentine Avenue, New York, N. Y.
- Liss, Julius
139 Eldridge Street, New York, N. Y.
- Lovich, Boris
1121 Morris Avenue, New York, N. Y. c/o
Rubin
- Lovish, Sidney
227 Hart Street, Brooklyn, N. Y.
- Lurie, Abraham
1950 Bryant Avenue, New York, N. Y.
- MacNear, Raymond
22 Fullerton Avenue, Newburgh, N. Y.
- Maddock, Catherine Margaret
College of Mt. St. Vincent, Mt. St. Vincent,
New York
- Malinak, Charles Henry
109 Ludlow Street, New York, N. Y.
- Mandell, Henry
191 Moore Street, Barberton, Ohio
- Marcus, Louis
169 East 102 Street, New York, N. Y.
- Markowitz, Max
222 East 124 Street, New York, N. Y.
- Mehr, Joseph
77 Davidson Avenue, Brooklyn, N. Y.
- Memmolli, Riccardo Eugenio
211 Avenue A, New York, N. Y.
- Milea, Francis D.
196 President Street, Brooklyn, N. Y.
- Miller, Henry
Main Street, Fleischmanns, N. Y.
- Miller, Joseph
105 East 109 Street, New York, N. Y.
- Miller, Kenneth Scott
23 Dale Avenue, Ossining, N. Y.
- Mintzer, Marcus
223 East 4 Street, New York, N. Y.
- Miraglia, Albert
661 Palisade Avenue, Grantwood, N. J.
- Nadelshaft, Isaac
827 Kelly Street, New York, N. Y.
- Nadler, Charles Jack
108 Gerry Street, Brooklyn, N. Y.
- Nash, Henry Bergen
34 Fairview Avenue, Walden, N. Y.
- Nielsen, Laurence R.
235a Monitor Street, Brooklyn, N. Y.
- Okrent, Frank
3019 Ocean Spray Avenue, Brighton Beach,
N. Y.

- Okst, George Kings Park, N. Y.
- O'Neill, Bernard
344 Dennison Parkway, Corning, N. Y.
- Palange, Edward Arthur
193 Bleecker Street, New York, N. Y.
- Panetta, Viola Diana
1840 W. 8 Street, Brooklyn, N. Y.
- Penner, Samuel
1769 Prospect Place, Brooklyn, N. Y.
- Plotkin, Louis
781-44th Street, Brooklyn, N. Y.
- Pohl, Morris
1118 Avenue K, c/o Dr. Pohl, Brooklyn, N. Y.
- Pollack, Sam
310 East 4 Street, New York, N. Y.
- Reife, Leo M.
1023 Hopkinson Avenue, Brooklyn, N. Y.
- Reisman, Saul
1341 Southern Boulevard, New York, N. Y.
- Rievman, Homer
2259-63rd Street, Brooklyn, N. Y.
- Rinzler, Philip
1243-55th Street, Brooklyn, N. Y.
- Robinson, Milton
981 East 14th Street, Brooklyn, N. Y.
- Rosati, Albert Benedict
9125-96th Street, Woodhaven, L. I.
- Rose, Kenneth William
39 South 12 Street, Mt. Vernon, N. Y.
- Rosenberg, Benjamin
858 Beck Street, New York, N. Y.
- Rosenblatt, Morris
1354 Brook Avenue, New York, N. Y.
- Rosenblum, Max
1976 Second Avenue, New York, N. Y.
- Rosenfeld, Marcus
652 Willoughby Avenue, Brooklyn, N. Y.
- Rosenstock, Pearl
48 Canal Street, Ellenville, N. Y.
- Rosenthal, Irving
299 South 5 Street, Brooklyn, N. Y.
- Rothman, Israel
465 Cleveland Street, Brooklyn, N. Y.
- Rubens, Nathan
105 Water Street, Stapleton, S. I.
- Rubenstein, Sidney
505 Essex Street, Brooklyn, N. Y.
- Rubin, Fannie
2140 Clinton Avenue, New York, N. Y.
- Rubin, Israel
324 Georgia Avenue, Brooklyn, N. Y.
- Safier, Herman
1904 Mermaid Avenue, Brooklyn, N. Y.
- Samlowitz, Max
89 Glenmore Avenue, Brooklyn, N. Y.
- Sanders, Herbert
7426 Seventh Avenue, Brooklyn, N. Y.
- Schaefer, Frank A.
673 Summit Avenue, Jersey City, N. J.
- Scherer, Ralph
73 Avenue C, New York, N. Y.
- Schmelzer, Henry
3803 Laurel Avenue, Seagate, N. Y.
- Schwartz, Julius
105 West 114 Street, New York, N. Y.
- Schwarz, Charles
366 Montgomery Street, Brooklyn, N. Y.
- Setaro, Rose Ann
2839-4th Avenue, Astoria, L. I.
- Shapiro, Irving Harold
179 Wood Avenue, Bridgeport, Conn.
- Sherman, Louis Joseph
78 Barrett Street, Brooklyn, N. Y.
- Shiffman, Samuel
39 Essex Street, New York, N. Y.
- Siegel, Samuel
307a Berriman Street, Brooklyn, N. Y.
- Silverstein, Morris
77 Keap Street, Brooklyn, N. Y.
- Simeone, Nicholas Ferdinand
640 Main Street, No. Bergen, N. J.
- Sirota, Benjamin
1419 Pitkin Avenue, Brooklyn, N. Y.
- Sitar, Joseph John
132 Spring Street, Union City, Conn.
- Smith, George
1448-79th Street, Brooklyn, N. Y.
- Smith, Lillian Russell
26 Lafayette Street, Brooklyn, N. Y.
- Soren, Charles Harry
932 Hoe Avenue, New York, N. Y.
- Spage, Robert
55-47th Street, Corona, N. Y.
- Spiegelglass, Samuel
1099 Union Avenue, New York, N. Y.
- Steigner, George William
438 Graham Avenue, Paterson, N. J.
- Stern, William
159 East 94 Street, Brooklyn, N. Y.
- Stout, William Calvin
71 Cambridge Street, Valley Stream, L. I.
- Tanenbaum, Hyman A.
52 Barrett Street, Brooklyn, N. Y.
- Tartakowsky, Louis
1152 Simpson Street, New York, N. Y.
- Tekowsky, Abraham
1725-51st Street, Brooklyn, N. Y.
- Trotsky, Meyer
224 East 11th Street, New York, N. Y.
- Troub, Kopel
258 Herzl Street, Brooklyn, N. Y.
- Tucker, Louis
1295 Sheridan Avenue, New York, N. Y.
- Tucker, Max
416 East 52 Street, New York, N. Y.
- Tuman, Robert
5323 Church Avenue, Brooklyn, N. Y.

Turk, Jacob Bernard
 308 New Lots Avenue, Brooklyn, N. Y.
 Weinstein, Julius
 2313 Mermaid Avenue, Brooklyn, N. Y.
 Weintraub, Sol
 1299 St. John Place, Brooklyn, N. Y.
 Westerman, Abraham
 416 East 120 Street, New York, N. Y.
 Wiener, Edward Martin
 1120-56th Street, Brooklyn, N. Y.
 Wiener, Meyer
 1280B Sheridan Avenue, New York, N. Y.
 Wiskin, Morris
 522 East 13 Street, New York, N. Y.
 Wolfowitz, Isidore
 189 Hart Street, Brooklyn, N. Y.
 Woodley, Edna Catherine
 College of Mt. St. Vincent, Mt. St. Vincent,
 New York
 Yablonski, Stanley Arthur
 174 Clinton Avenue, Maspeth, N. Y.
 Yakoubian, Leon
 5424-18th Avenue, Brooklyn, N. Y.
 Zablocki, Henry
 93 South 10 Street, Brooklyn, N. Y.
 Zahn, Joseph Bernard
 1466 Brook Avenue, New York, N. Y.
 Zaugg, Stanley Britain
 2502 Chamberlain Avenue, Chattanooga,
 Tenn.
 (213)

FIRST YEAR COLLEGE CLASS

Abramoff, Adolph
 221 East 66 Street, New York, N. Y.
 Adler, Solomon
 739 East 6 Street, New York, N. Y.
 Amazon, Maxwell
 320-340 Sea Breeze Avenue, Brooklyn, N. Y.
 Amster, Herman Charles
 693 Monroe Street, Brooklyn, N. Y.
 Appelbaum, Gershon
 25 West 112 Street, c/o Schneider, New York,
 N. Y.
 Aronowitz, Louis
 49 West 34 Street, New York, N. Y.
 Avirom, Morris
 358 Hart Street, Brooklyn, N. Y.
 Ax, Irving
 276 Avenue A, New York, N. Y.
 Baizer, Louis
 199 E. Houston Street, New York, N. Y.
 Balaban, Chaiah E.
 333 Sheffield Avenue, Brooklyn, N. Y.
 Barile, Emerico Alfred
 235 West 67 Street, New York, N. Y.
 Barnes, Robert Leo
 328 Leah Street, Utica, N. Y.
 Becker, Harry
 1056 Hoe Avenue, New York, N. Y.

Becker, Joseph George
 25-35 Blake Avenue, Brooklyn, N. Y.
 Beeber, Joseph
 134 Clymer Street, Brooklyn, N. Y.
 Bennett, Benjamin Herman
 233 So. Second Street, Brooklyn, N. Y.
 Bergman, Israel
 115 St. Marks Place, New York, N. Y.
 Berkowitz, Bernard
 1472 Wilkins Avenue, New York, N. Y.
 Berkowitz, Simon
 92 Rivington Street, New York, N. Y.
 Berman, Louis Leo
 43 Forsyth Street, New York, N. Y.
 Bernstein, Charles Leo
 216 East 6 Street, New York, N. Y.
 Bernstein, Jesse L.
 1710 Hoe Avenue, New York, N. Y.
 Bernstein, Milton
 39 West 113 Street, New York, N. Y.
 Bershatsky, Joseph
 651 Marcy Avenue, Brooklyn, N. Y.
 Biller, Moses Leon
 115 Columbia Street, New York, N. Y.
 Bolker, Abraham
 1926 Pacific Street, Brooklyn, N. Y.
 Botti, Nicholas Albert
 509 Greenwood Avenue, Brooklyn, N. Y.
 Boxer, Hyman
 1709 Bathgate Avenue, New York, N. Y.
 Boxer, Michael
 800 Fox Street, New York, N. Y.
 Brensilver, David I.
 637 Tinton Avenue, New York, N. Y.
 Bronstein, Harry
 180 Varet Street, Brooklyn, N. Y.
 Bronstein, Leo
 201 Varet Street, Brooklyn, N. Y.
 Brown, Howard Wendell
 401 Main Street, New Rochelle, N. Y.
 Butensky, Samuel
 1814 Park Place, Brooklyn, N. Y.
 Chaifetz, Morris
 49 Rutgers Street, New York, N. Y.
 Chait, Reuben
 352 West 117 Street, New York, N. Y.
 Charney, Abraham
 1255 Blake Avenue, Brooklyn, N. Y.
 Chasman, Solomon
 132-17th Street, Brooklyn, N. Y.
 Chasnowitz, Irving
 890 Fox Street, New York, N. Y.
 Chasnowitz, Martin
 890 Fox Street, New York, N. Y.
 Cheresh, Edward Julius
 374 So. Second Street, Brooklyn, N. Y.
 Cipriano, Robert M.
 512 Greene Avenue, Brooklyn, N. Y.

- Cody, Mary Rose
94 Main Street, New Canaan, Conn.
- Cohen, Abraham
230 Woolsey Avenue, Astoria, L. I.
- Cohen, Abraham
344 Georgia Avenue, Brooklyn, N. Y.
- Cohen, Milton
2518 Clarendon Road, Brooklyn, N. Y.
- Cohen Philip
1532 Longfellow Avenue, New York, N. Y.
- Cohen, Sam
69 Hinsdale Street, Brooklyn, N. Y.
- Cohen, Sigmund
1807-63rd Street, Brooklyn, N. Y.
- Cohen, Solomon
43 Eldridge Street, New York, N. Y.
- D'Addario, Tullio Artelio
231 East 13 Street, New York, N. Y.
- David, Solomon
117 South 4th Street, Brooklyn, N. Y.
- DeFilippis, Americo Joseph
2-B King Street, New York, N. Y.
- deLalla, Carmelita Anne
704 Bleecker Street, Utica, N. Y.
- Denhoffer, Benjamin
922 Myrtle Avenue, Brooklyn, N. Y.
- Denker, Benjamin
496 East 174 Street, New York, N. Y.
- Deutsch, Max
41 Convent Avenue, New York, N. Y.
- DiBella, Joseph Vincent
690 Hudson Avenue, West New York, N. J.
- Dubinsky, Jack
1566 St. Marks Avenue, Brooklyn, N. Y.
- Dubnick, Samuel
1838 Park Place, Brooklyn, N. Y.
- Dumont-Belzil, Marie Celina
531 East 86 Street, New York, N. Y.
- Dworsky, Nathan
62 West 124 Street, New York, N. Y.
- Eisenberg, Max
1284 Amsterdam Avenue, Apt. 12, New York, N. Y.
- Eisler, Abraham Harry
226 Hart Street, Brooklyn, N. Y.
- Elkowitz, Paul
368 East 4 Street, New York, N. Y.
- Epstein, Harry
484 Claremont Parkway, New York, N. Y.
- Errante, Frank Joseph
389 Shepherd Avenue, Brooklyn, N. Y.
- Fass, Morris
1518 Walton Avenue, New York, N. Y.
- Feuerstein, Abraham
481 Warwick Street, Brooklyn, N. Y.
- Finkelstein, Morris
1047 Avenue St. John, New York, N. Y.
- Florence, Paul Adrien
213 Pomander Road, Mineola, L. I.
- Fox, Jerry Abe
879 Elsmere Place, New York, N. Y.
- Franzblau, Max
2028 Gleason Avenue, New York, N. Y.
- Fried, Morris David
164 Havemeyer Street, Brooklyn, N. Y.
- Friedman, Harry
1214 Avenue K, Brooklyn, N. Y.
- Friedman, Jacob
89 Aldine Street, Newark, N. J.
- Friedman, Leonard
840 West End Avenue, New York, N. Y.
- Friedman, Nathan Fisher
615 West 162 Street, New York, N. Y.
- Fuchs, Louis
343 East 16 Street, New York, N. Y.
- Garfinkle, Arthur
48 East 15 Street, Bayonne, N. J.
- Gargiulo, Dominick Francis
1869 West 10 Street, Brooklyn, N. Y.
- Gilbert, Jacob Carlman
459 West 46 Street, New York, N. Y.
- Gilliar, Frank James
53 Grace Avenue, Great Neck, N. Y.
- Gimbel, William Breitbart
565 Cleveland Street, Brooklyn, N. Y.
- Gioia, Michael Angelo
1115 Avenue Z, Brooklyn, N. Y.
- Glance, Abraham Louis
853 East 170 Street, New York, N. Y.
- Glazer, Louis Alfred
1275 Grant Avenue, New York, N. Y.
- Glick, Meyer
215 East 4 Street, New York, N. Y.
- Goldberg, Nathan
529 Hinsdale Street, Brooklyn, N. Y.
- Goldrad, Harry
1491 Brook Avenue, New York, N. Y.
- Goldstein, Samuel
53 Liberty Avenue, New York, N. Y.
- Goozman, Max
826 Second Avenue, New York, N. Y.
- Goran, Philip
140 East 7 Street, New York, N. Y.
- Gorset, Abraham Frank
175 Middleton Street, Brooklyn, N. Y.
- Govendy, Anna Belle
835 So. Townsend Street, Syracuse, N. Y.
- Groopman, Harry
548 Fox Street, New York, N. Y.
- Grossman, Max
7 Bay 22 Street, c/o Malin, Brooklyn, N. Y.
- Gullo, Nancy
148 Hester Street, New York, N. Y.
- Halfin, Herman
3420 Laron Avenue, Cincinnati, Ohio
- Halpert, Isidore
1762-62nd Street, Brooklyn, N. Y.

- Haven, Meyer Rubin
117 South 4 Street, Brooklyn, N. Y.
- Heckman, Alexander
1964 West 6 Street, Brooklyn, N. Y.
- Heller, Bella
902 Hopkinson Avenue, Brooklyn, N. Y.
- Hirschman, Hyman
7 East 108 Street, New York, N. Y.
- Hochstadt, Samuel
508 Williams Avenue, Brooklyn, N. Y.
- Isikowitz, Bernard Morris
426 Snediker Avenue, Brooklyn, N. Y.
- Israel, Leon Harold
319 Cherry Street, New York, N. Y.
- Itzkowitz, Harry
1717-60th Street, Brooklyn, N. Y.
- Itzkowitz, Isidore
602 Junius Street, Brooklyn, N. Y.
- Jablin, Michael Marvin
1620 St. Johns Place, Brooklyn, N. Y.
- Jacobowitz, Jacob
336 East 55 Street, Brooklyn, N. Y.
- Janiger, Phoebe
47 West 112 Street, New York, N. Y.
- Kannry, Irving
64 East 103 Street, New York, N. Y.
- Kaplan, Julius
1382 College Avenue, New York, N. Y.
- Katz, Aaron
3802-12th Avenue, Brooklyn, N. Y.
- Katz, Abraham
320 East 122 Street, New York, N. Y.
- Kerachsky, Isador Leonard Bridge, Conn.
- Keylin, Solomon
1361 Intervale Avenue, New York, N. Y.
- Klinger, Bernard
1304 Sterling Place, Brooklyn, N. Y.
- Klinger, Sol
689 Beck Street, New York, N. Y.
- Komisaruk, William Boris
367 East 179 Street, New York, N. Y.
- Krant, Harry
850 Eastern Parkway, Brooklyn, N. Y.
- Krause, William
238 Main Street, Port Jefferson, N. Y.
- Kunitz, Edward A.
1280 Walton Avenue, New York, N. Y.
- Lacovara, Vincent
210 East 7 Street, Brooklyn, N. Y.
- Lager, Samuel
1440 Crotona Park East, New York, N. Y.
- Langberg, Isidore
357 South 5 Street, Brooklyn, N. Y.
- Laster, Samuel
221 East 82 Street, New York, N. Y.
- Lazarowitz, Abraham
557 Simpson Place, New York, N. Y.
- Lefrak, David
1522 Webster Avenue, New York, N. Y.
- Leitner, Yetta
1054 Eastern Parkway, Brooklyn, N. Y.
- Lenkowsky, Solomon David
286 Grafton Street, Brooklyn, N. Y.
- Lennon, Mary Augusta Pawling, N. Y.
- Lev, Max
419 West 115 Street, New York, N. Y.
- Levine, Esro
1051 Kelly Street, New York, N. Y.
- Levine, Jesse Woodridge, N. Y.
- Levinson, Meyer
584 East 137 Street, New York, N. Y.
- Lewis, David Kenneth
290 West End Avenue, New York, N. Y.
- Lindeman, Henry O.
109-36-132nd Street, Richmond Hill, N. Y.
- Longano, Carmine
554 Lorimer Street, Brooklyn, N. Y.
- Lortz, Edgar Martin
279 W. Main Street, Ilion, N. Y.
- Lucas, Carl
238 Ft. Washington Avenue, New York, N. Y.
- Luntz, Stanley
725-45th Street, Brooklyn, N. Y.
- Lyons, Roland Frederick Lake Placid, N. Y.
- McArdle, James W.
187 Robinson Avenue, Newburgh, N. Y.
- McEwen, Harry Wayne
262 Broadway, Fort Edward, N. Y.
- McGraw, Harvey B.
34 Tompkins Street, Cortland, N. Y.
- McKaba, Arthur Essad
134 State Street, Brooklyn, N. Y.
- Maffia, Joseph J.
212 East 61 Street, New York, N. Y.
- Manson, Abraham
63 Columbia Street, New York, N. Y.
- Margotta, Anna Letitia
169 Union Avenue, New Rochelle, N. Y.
- Marotta, Raphael Anthony
3 Edson Place, Corona, N. Y.
- Martin, George Thomas Lake Placid, N. Y.
- Martocci, Amedeo
442 East 16 Street, New York, N. Y.
- Mersel, Joseph
77 Perry Street, New York, N. Y.
- Miceli, Anthony William
784 Bushwick Avenue, Brooklyn, N. Y.
- Miller, Benjamin
1347-40th Street, Brooklyn, N. Y.
- Miller, Joseph
98 Louisa Street, Brooklyn, N. Y.
- Miller, Mina
1823 Mohegan Avenue, New York, N. Y.
- Miller, Samuel
467 Kosciusko Street, Brooklyn, N. Y.
- Morton, Timothy Harris
Hotel Governor Clinton, Kingston, N. Y.

- Mucelli, Gaetano
162 Atkins Avenue, Brooklyn, N. Y.
- Mulhall, John Anthony
16 Liberty Street, W. H. Newburgh, N. Y.
- Musso, Frank 522-9th Street, Brooklyn, N. Y.
- Norman, Elmer Martin
30-60 Sixth Avenue, Astoria, L. I.
- Novosolsky, Henry
523 West 138 Street, New York, N. Y.
- Okrent, John
3019 Ocean Spray Avenue, Brooklyn, N. Y.
- Olenick, Jacob
1046 Rutland Road, Brooklyn, N. Y.
- Ornstrat, Leon
980 Fox Street, c/o Keller, New York, N. Y.
- Orso, Anthony
R. F. D. No. 2 Hempstead, N. Y.
- Oxman, William
365 Dumont Avenue, Brooklyn, N. Y.
- Padow, Meyer
1024 East 14 Street, Brooklyn, N. Y.
- Pagano, Dominick
128 E. Broadway, New York, N. Y.
- Palen, Richard Gilbert
44 Pauling Avenue, Cold Springs, N. Y.
- Palen, Robert O'Neill Monroe, N. Y.
- Picheny, Bernard
213 Clinton Street, New York, N. Y.
- Pollack, Jacob Philip
52 Reid Avenue, Brooklyn, N. Y.
- Pollack, Lawrence
1556 Hoe Avenue, c/o Salop, New York, N. Y.
- Polizzi, Fred Edmund
1246-40th Street, Brooklyn, N. Y.
- Pomerantz, Nathan Joseph
1637-44th Street, Brooklyn, N. Y.
- Ponticello, Francis Anthony
52 Council Street, Rochester, N. Y.
- Puleo, Nicholas D.
415 East 12 Street, New York, N. Y.
- Pumo, Anthony
224 Suydam Street, Brooklyn, N. Y.
- Rabinowitz, Morris
1284 Amsterdam Avenue, New York, N. Y.
- Rabinowitz, Samuel
445 Rockaway Parkway, Brooklyn, N. Y.
- Rader, Dora Lillie
957 Fox Street, New York, N. Y.
- Raia, Emanuel Joseph
1396 Herkimer Street, Brooklyn, N. Y.
- Ramo, Louis
34 Marks Avenue, Rockville Centre, L. I.
- Reece, Harry William
86 Valentine Street, Westbrook, Me.
- Reifman, Isaac
922 Barretto Street, New York, N. Y.
- Reiss, William
198 Decatur Street, Brooklyn, N. Y.
- Rich, Patsy
21 Evergreen Avenue, Rye, N. Y.
- Richert, Edward V.
Jericho Turnpike & Ingraham Lane, New Hyde Park, L. I.
- Rinaldi, Charles Domnick
1362-64th Street, Brooklyn, N. Y.
- Rosen, Julius
28 Warren Street, Ellenville, N. Y.
- Rosenberg, Harry Oscar
123 Rockaway Parkway, Brooklyn, N. Y.
- Rosenthaler, Malvin
202-16th Street, College Point, N. Y.
- Rossi, James
370 Metropolitan Avenue, Brooklyn, N. Y.
- Rothenberg, David
537 Powell Street, c/o Shapiro, New York, N. Y.
- Rothfeld, Emanuel
35 East 110 Street, New York, N. Y.
- Sahr, Sydney
3443-62nd Street, Woodside, N. Y.
- Salitan, Ralph
518 West 111 Street, c/o Cozoshansky, New York, N. Y.
- Saltzman, David
108 Moore Street, Brooklyn, N. Y.
- Samuels, George
1526 Lincoln Place, Brooklyn, N. Y.
- Sanders, Bernard
7426 Seventh Avenue, Brooklyn, N. Y.
- Santagada, Francis Paul
81 City Terrace, Newburgh, N. Y.
- Sarawaisky, Isadore
20 Bergen Place, Jamaica, N. Y.
- Schames, Louis
507 Ashford Street, Brooklyn, N. Y.
- Schavsis, Alexander
731 Union Avenue, New York, N. Y.
- Schechner, Louis
1223-55th Street, Brooklyn, N. Y.
- Schein, Henry
244 Roebling Street, Brooklyn, N. Y.
- Schlosberg, Nathan
4 East 108 Street, New York, N. Y.
- Schneider, Milton Solomon
1059 First Avenue, New York, N. Y.
- Schrage, Joseph
1568 Macomba Road, New York, N. Y.
- Schuker, Litman Halbert
362 Grand Street, Brooklyn, N. Y.
- Schultz, George
306 East 73 Street, New York, N. Y.
- Schwartz, Joseph George
250 East 30 Street, New York, N. Y.
- Schwartzberg, Louis
5 Roeberge Place, Brooklyn, N. Y.
- Segal, Benjamin
8705 Bay Parkway, Brooklyn, N. Y.

- Shaffet, Robert
7620 Rockaway Blvd., Woodhaven, L. I.
- Shaftman, Charles Samuel
64 West 108 Street, New York, N. Y.
- Shapiro, Daniel
1518 East 172 Street, New York, N. Y.
- Shapiro, Morris
231 East 99 Street, New York, N. Y.
- Sherman, Barney Bernard
16 Van Wyck Avenue, Jamaica, N. Y.
- Shucard, Morris
904 Stone Avenue, Brooklyn, N. Y.
- Sidelsky, Samuel
237 East 93 Street, Brooklyn, N. Y.
- Siegel, Max
228 South First Street, Brooklyn, N. Y.
- Siegel, Morris
2017 Lafontaine Avenue, New York, N. Y.
- Silverman, Jacob Ronald
629 Rast 5 Street, New York, N. Y.
- Singer, Nathan
988 Simpson Street, c/o McAuliffe, New York, N. Y.
- Sirulnick, Raphael
2010 Ocean Avenue, Brooklyn, N. Y.
- Slavin, Isadore
141 Second Avenue, New York, N. Y.
- Slutsky, Benjamin
65 Norfolk Street, New York, N. Y.
- Smith, Edward Joseph
1561 West 11 Street, Brooklyn, N. Y.
- Smolowitz, Bernard
29 West 119 Street, New York, N. Y.
- Sorin, Mae
2166 Eighth Avenue, New York, N. Y.
- Sorkenn, Ralph
307 West 3 Street, Chester, Pa.
- Speller, Clarence William
22 Wyandotte Avenue, Highland Falls, N. Y.
- Spivack, Meyer
67 East 106 Street, New York, N. Y.
- Steinberg, Eva
2867 West 27 Street, Brooklyn, N. Y.
- Strassberg, Sidney
544 St. Paul's Place, New York, N. Y.
- Strauss, David
473 Jerome Street, Brooklyn, N. Y.
- Sussman, Henry
1956 Crotona Parkway, New York, N. Y.
- Tabachnick, Max Joseph
178 Hooper Street, Brooklyn, N. Y.
- Talenbloom, Julius
220 Campbell Avenue, Revere, Mass.
- Tandlich, Henry
3124 Mermaid Avenue, Coney Island, N. Y.
- Tansky, David
810 Hunts Point Avenue, New York, N. Y.
- Tapola, Lucille Hylia
600 West 189 Street, New York, N. Y.
- Tekel, Benjamin
617 East 11 Street, New York, N. Y.
- Thimble, Rudolph Naprstek
40-19 Twenty-Fourth Street, Long Island, City, N. Y.
- Tobis, Abraham
832 Whitlock Avenue, New York, N. Y.
- Tolkoff, Paul
18 East 107 Street, New York, N. Y.
- Tripoli, Bartholomew Antonio
Box 403, Stafford Springs, Conn.
- Turetsky, David
11817 Liberty Avenue, Richmond Hill, N. Y.
- Valentino, Louis Rudolph
74 President Street, Brooklyn, N. Y.
- Veprovsky, Lawrence
1430 First Avenue, New York, N. Y.
- Verdrager, David
541 Flushing Avenue, Brooklyn, N. Y.
- Vitale, Leonida P.
1637-68th Street, Brooklyn, N. Y.
- Vix, George
132-03 Cranston Avenue, Belle Harbor, N. Y.
- Vogel, Joseph
434 Beach 124 Street, Rockaway Park, L. I.
- Waldinger, David
1231 Lincoln Place, Brooklyn, N. Y.
- Warfman, Alice Elaine
1057 Hoe Avenue, New York, N. Y.
- Waterbury, Whitford
1665 Grand Concourse, New York, N. Y.
- Weinberg, Rubin
224 South 3 Street, Brooklyn, N. Y.
- Weiner, Irving J.
1925 Crotona Avenue, New York, N. Y.
- Weinstein, Isadore
1927 Second Avenue, New York, N. Y.
- Weinstein, Milton
236 Clinton Street, New York, N. Y.
- Weiss, Alfred Schoen
641 Vanderbilt Avenue, Brooklyn, N. Y.
- Wieder, Irving Philip
3625 Mermaid Avenue, Brooklyn, N. Y.
- Wolin, Louis
9600 Roosevelt Avenue, Corona, N. Y.
- Yanowitz, Irving
1515-45th Street, Brooklyn, N. Y.
- Yosepowitz, Joseph
1336 Brook Avenue, New York, N. Y.
- Yudcovich, Jack
700 East 161 Street, New York, N. Y.
- Zanca, Anthony
1320 Brook Avenue, New York, N. Y.
- Zelenko, Alexander D.
389 Beech Street, Teaneck, N. J.
- Zeltzer, Irving
553 Williams Avenue, Brooklyn, N. Y.

Zilberg, Benton
59 West 73 Street, c/o Goodkind, New York,
N. Y.

Zincover, Julius
1056-50th Street, Brooklyn, N. Y.

Zirin, Benjamin
75 East 109 Street, New York, N. Y.
(279)

EVENING COURSES

Abrevaya, Leon
978 Grant Avenue, New York, N. Y.

Baumann, Fred David
537 Wythe Avenue, Brooklyn, N. Y.

Baumann, Sarah
537 Wythe Avenue, Brooklyn, N. Y.

Beck, Theodore E.
7015 Narrows Avenue, Brooklyn, N. Y.

Behr, Anna
38 West 50 Street, New York, N. Y.

Berg, Henry
169 East 105 Street, New York, N. Y.

Berner, May
3904 Neptune Avenue, Sea Gate, N. Y.

Bisen, David
2054-77th Street, Brooklyn, N. Y.

Chapman, William I.
2062 Davidson Avenue, New York, N. Y.

Cheng, Chiang
425 West 114 Street, New York, N. Y.

deMackiewicz, Julius Hollwegs
15 Echo Avenue, New Rochelle, N. Y.

Dotto, Rose Z.
21 Hazelwood Avenue, Newark, N. J.

Dunn, Dan E.
476 West 165 Street, New York, N. Y.

Feigenbaum, Robert
447 East 83 Street, New York, N. Y.

Feinberg, Harry Isadore
340 Ellery Street, Brooklyn, N. Y.

Ferrara, John
247 Humboldt Street, Brooklyn, N. Y.

Finkelstein, Benjamin
180 Grand Street, Brooklyn, N. Y.

Friend, Sidney
353 Central Park West, New York, N. Y.

Gaer, Nathaniel
641 Lafayette Avenue, Brooklyn, N. Y.

Gianunnzio, V. Mamaroneck, N. Y.

Glassman, Morris Leon
977 DeKalb Avenue, Brooklyn, N. Y.

Grinwalski, Andrew
939 Bushwick Avenue, New York, N. Y.

Gritz, David
68 Fairview Avenue, Newark, N. J.

Hardy, William H.
351 West 48th Street, New York, N. Y.

Hashiguchi, Tetsu
9 West 98 Street, New York, N. Y.

Heller, Samuel
2211 Second Avenue, New York, N. Y.
Hopenfeld, David
6 Spa Place, Jamaica, L. I.

Isaacs, Irving L.
1046 East 29 Street, Brooklyn, N. Y.

Katz, Jacob F.
865 East 178 Street, New York, N. Y.

Keilin, Harry
1685 Bryant Avenue, New York, N. Y.

Kelly, Charles F.
3131 Broadway, New York, N. Y.

Klein, Gustav Joseph
57 Bradford Street, Harrison, N. Y.

Koslosky, Henry
366 Kingston Avenue, Brooklyn, N. Y.

Krispien, Arthur
216 Park Avenue, Hoboken, N. J.

Lacovara, George
754 East 215 Street, New York, N. Y.

Law, Arthur T.
252 East 128 Street, New York, N. Y.

Law, Leonard L.
252 East 128 Street, New York, N. Y.

Levinson, Samuel E.
136 Cook Street, New York, N. Y.

Levy, Bernard
1837 Clinton Avenue, New York, N. Y.

MacLaire, Arnold Ira
1512-45th Street, Brooklyn, N. Y.

Mascia, Saverio Alfredo
403 East 105 Street, New York, N. Y.

Matchabelli, George
2 East 78 Street, New York, N. Y.

Mazlish, David J.
137a DeKalb Avenue, Jersey City, N. J.

Montiel, Nicholas
268 West 84 Street, New York, N. Y.

Morlath, William
518-34th Street, Woodcliff, N. J.

Moser, Walter Conrod
524 Palisade Avenue, Weehawken, N. J.

Myers, Charles Augustus, Jr.
310 St. John's Place, Brooklyn, N. Y.

Naddeo, Gaetano
960 East 156 Street, New York, N. Y.

Nadel, Leo Harry
92 St. Nicholas Avenue, New York, N. Y.

Ogilvie, Mary Gladys
28 West 69 Street, New York, N. Y.

Passilia, August Joseph
2808 Ft. Hamilton Parkway, Brooklyn, N. Y.

Perch, Mary d'Este
603 Fifth Avenue, New York, N. Y.

Pietrafesa, Dominic Michael
328 West 17 Street, New York, N. Y.

Pleskow, Morris
634 East 180 Street, New York, N. Y.

- Plotnick, Arthur David
1333 Brook Avenue, New York, N. Y.
- Pollack, Paul
25 Barrett Street, Brooklyn, N. Y.
- Raffy, Marcel Joseph
156 East 45 Street, New York, N. Y.
- Ricciardi, Rocco Raymond
120 Lake Street, Jersey City, N. J.
- Rich, Anthony J.
21 Evergreen Avenue, Rye, N. Y.
- Rimer, Max
320 East 91 Street, New York, N. Y.
- Robinson, Annie
313 East 43 Street, New York, N. Y.
- Rohrer, Beverly
67 West 50 Street, New York, N. Y.
- Rosenberg, Emanuel
1302 Avenue "K", Brooklyn, N. Y.
- Ruhfus, Paul
34-73rd Street, New York, N. Y.
- Sager, Saul S.
2854 West 25 Street, Brooklyn, N. Y.
- Seriego, Juan B.
247 West 116 Street, New York, N. Y.
- Schedy, Walter
254 Pennington Avenue, Passaic, N. J.
- Schwartz, Benjamin
217 Bristol Street, Brooklyn, N. Y.
- Seider, Solomon
86 West 183 Street, c/o Michaels, New York, N. Y.
- Shenit, Harry
347 Bradford Street, Brooklyn, N. Y.
- Smith, Lillian Russell
26 Lafayette Street, Brooklyn, N. Y.
- Smith, Maurice Harris
2393 Sedgwick Avenue, New York, N. Y.
- Sonntag, Ernst
30 West 76 Street, New York, N. Y.
- Spiekerman, Kraffe
316 West 95 Street, New York, N. Y.
- Tansky, Harry
810 Hunts Point Avenue, New York, N. Y.
- Thoden, Herman Joseph
1969 Amsterdam Avenue, New York, N. Y.
- Vail, Frederick
107 East 2 Street, Brooklyn, N. Y.
- Vogel, Newton Harry
1433 Kensington Gardens, Far Rockaway, N. Y.
- Vos, Herbert
875 Hunts Point Avenue, New York, N. Y.
- Weinstein, Max
1657 Lexington Avenue, New York, N. Y.
- Wiegand, Adolph
477 West 142 Street, New York, N. Y.
- Wilson, Alfred J. P.
126 So. Park Avenue, Rockville Centre, N. Y.
- Zang, Rose Evelyn
467 Bedford Avenue, Brooklyn, N. Y.
- Zucker, Abraham
644 Warwick Street, Brooklyn, N. Y.

Tuesday

Section 1	Section 2	Section 3	Section 4	Section 5	Section 6
9-10 Botany Lect.	Botany Lect.	Botany Lect.	Botany Lect.	Botany Lect.	Botany Lect.
10-11 Posology	Posology	Posology	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
11-12 Botany Lab.	Botany Lab.	Botany Lab.	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
12-1 Botany Lab.	Botany Lab.	Botany Lab.	Pharmacy Lab. <i>Disp</i>	Pharmacy Lab. <i>Disp</i>	Pharmacy Lab. <i>Disp</i>
2-3 Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
3-4 Histology Lect. or Recit.*	Histology Lect. or Recit.*	Histology Lect. or Recit.*	Botany Recit.	Pharmacy Recit.	Pharmacy Recit.
4-5 Botany Lab.	Botany Lab.	Botany Lab.	Physics Recit.	Chemistry Recit.	Physics Recit.
5-6 Botany Lab.	Botany Lab.	Botany Lab.	Chemistry Recit.	Physics Recit.	Chemistry Recit.

Thursday

9-10 Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
10-11 Chemical Lab.	Chemical Lab.	Chemical Lab.	Posology	Posology	Posology
11-12 Chemical Lab.	Chemical Lab.	Chemical Lab.	Botany Lab.	Botany Lab.	Botany Lab.
12-1 Chemical Lab.	Chemical Lab.	Chemical Lab.	Botany Lab.	Botany Lab.	Botany Lab.
2-3 Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
3-4 Botany Recit.	Botany Recit.	Pharmacy Recit.	Histology Lect. or Recit.*	Histology Lect. or Recit.*	Histology Lect. or Recit.*
4-5 Phar. Arithmetic	Phar. Arithmetic	Phar. Arithmetic	Botany Lab.	Botany Lab.	Botany Lab.
5-6 Pharmacy Recit.	Pharmacy Recit.	Physics Recit.	Botany Lab.	Botany Lab.	Botany Lab.

Saturday

9-10 Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
10-11 Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.	Chemical Lab.	Chemical Lab.	Chemical Lab.
11-12 Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.	Chemical Lab.	Chemical Lab.	Chemical Lab.
12-1 Pharmacy Lab. <i>Disp</i>	Pharmacy Lab. <i>Disp</i>	Pharmacy Lab. <i>Disp</i>	Chemical Lab.	Chemical Lab.	Chemical Lab.
2-3 Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.
3-4 Physics Recit.	Chemistry Recit.	Chemistry Recit.	Pharmacy Recit.	Botany Recit.	Botany Recit.
4-5 Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.
5-6 Chemistry Recit.	Physics Recit.	Botany Recit.	Phar. Arithmetic	Phar. Arithmetic	Phar. Arithmetic

*Histology Lecture and Recitation are given on alternate weeks.

Monday

	Section 1 (X)	Section 2 (X)	Section 3 (X)	Section 4 (Y)	Section 5 (Y)
9-10	~~Toxicol~~ Mat. Med. Lect.	~~Toxicol~~ Mat. Med. Lect.	~~Toxicol~~ Section 3 (Y) Mat. Med. Lect.	~~Toxicol~~ Mat. Med. Lect.	~~Toxicol~~ Mat. Med. Lect.
10-1	Phar' cog. Lab.	Phar' cog. Lab.	Phar' cog. Lab. (Section X)	Chemical Lab.	Chemical Lab.

2-3	Coml. Pharmacy	Coml. Pharmacy	Chemistry Recit.	Pharmacy Recit.	Chemistry Recit.
3-4	Coml. Pharmacy	Coml. Pharmacy	Pharmacy Recit.	Mat. Med. Recit.	Pharmacy Recit.
4-5	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
5-6	Chemistry Recit.	Pharmacy Recit. <i>Recit</i>	Mat. Med. Recit.	Chemistry Recit.	Mat. Med. Recit.

Wednesday

9-10	Pharmacy Recit.	Mat. Med. Recit.	Chemistry Recit.	~~Pharm~~ Pharmacy Recit.	Chemistry Recit.
10-1	Chemical Lab.	Chemical Lab.	Chemical Lab. (Section X)	Pharmacy Lab.	Pharmacy Lab.

2-3	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
3-4	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
4-5	Mat. Med. Recit.	Chemistry Recit.	Coml. Pharmacy	Coml. Pharmacy	Pharmacy Recit.
5-6	Chemistry Recit.	Pharmacy Recit.	Coml. Pharmacy	Coml. Pharmacy	Mat. Med. Recit.

Friday

9-10	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
10-12	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab. (Section X)	Phar' cog. Lab.	Phar' cog. Lab.
12-1	<i>Dispensing Lab</i>	<i>Dispensing Lab</i>	Phar' cog. Lab. (Section Y)		

2-3	~~Pharm~~ Pharmacy Recit.	Mat. Med. Recit.	~~Pharm~~ Pharmacy Recit.	Mat. Med. Recit.	Coml. Pharmacy
3-4	Mat. Med. Recit.	Chemistry Recit.	Mat. Med. Recit.	Chemistry Recit.	Coml. Pharmacy
4-5	Mat. Med. Lect.	Mat. Med. Lect.	Mat. Med. Lect.	Mat. Med. Lect.	Mat. Med. Lect.
5-6	Coml. Phar. Lect.	Coml. Phar. Lect.	Coml. Phar. Lect.	Coml. Phar. Lect.	Coml. Phar. Lect.

UNIVERSITY CLASS FRESHMAN YEAR

Tuesday

	Section A	Section B
9-10	Botany Lect.	Botany Lect.
10-11	Chemical Lab.	Chemical Lab.
11-12	Chemical Lab.	Chemical Lab.
12-1	Chemical Lab.	Chemical Lab.
2-3	Pharmacy Lect.	Pharmacy Lect.
3-4		English
4-5		American Government

Wednesday

9-10	American Government	English
10-11	English	
11-12	Pharmacy Recit.	Pharmacy Recit.
12-1	Chemistry Recit.	Chemistry Recit.
2-3	<i>Handwritten: Botany Lect.</i>	<i>Handwritten: Botany Lect.</i>
3-4	Botany Lab.	Botany Lab.
4-5	Botany Lab.—Posology*	Botany Lab.—Posology*

Thursday

9-10	Pharmacy Lect.	Pharmacy Lect.
10-11	Pharmacy Lab.	Pharmacy Lab.
11-12	Pharmacy Lab.	Pharmacy Lab.
12-1	<i>Handwritten: Disp—Pharmacy Lab.</i>	<i>Handwritten: Disp—Pharmacy Lab.</i>
2-3	Chemistry Lect.	Chemistry Lect.
3-4	Pharmacy Lab.	Pharmacy Lab.
4-5	Pharmacy Lab.	Pharmacy Lab.

Friday

9-10	Botany Recit.	Botany Recit.
10-11	Physics Recit.	Physics Recit.
11-12	Anal. Chem. Recit.	Anal. Chem. Recit.
12-1	Phar. Arithmetic	Phar. Arithmetic
2-3	American Government	
3-4	English	American Government
4-5		

Saturday

9-10	Chemistry Lect.	Chemistry Lect.
10-11	Botany Lab.	Botany Lab.
11-12	Botany Lab.	Botany Lab.
12-1	Botany Lab.	Botany Lab.
2-3	Physics Lect.	Physics Lect.
3-4	American Government	English
4-5	English	American Government

UNIVERSITY CLASS SOPHOMORE YEAR

Monday

	Section 6 (Z)	Section 7 (Z)	Section 8 (Z)
9-10	Mat. Med. Recit.	Pharmacy Recit.	Chemistry Recit.
10-11	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
11-12	<i>Handwritten: Mat. Med. Lect.</i>	<i>Handwritten: Mat. Med. Lect.</i>	<i>Handwritten: Mat. Med. Lect.</i>
2-3	Mat. Med. Lect.	Mat. Med. Lect.	Mat. Med. Lect.
3-4	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
4-5	Chemistry Recit.	Mat. Med. Recit.	Pharmacy Recit.
5-6	Coml. Phar. Lect.	Coml. Phar. Lect.	Coml. Phar. Lect.

Wednesday

9-10	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
10-11	Phar'cog. Lab.	Phar'cog. Lab.	Phar'cog. Lab.
2-3	Coml. Pharmacy	Coml. Pharmacy	Coml. Pharmacy
3-4	Coml. Pharmacy	Coml. Pharmacy	Coml. Pharmacy
4-5	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
5-6	Physics Lect.	Physics Lect.	Physics Lect.

*Botany Laboratory and Posology are given on alternate weeks.

Friday

9-10	^{help} Pharmacy Recit.	Mat. Med. Recit.	Mat. Med. Recit.
10-1	Chemical Lab.	Chemical Lab.	Chemical Lab.
2-3	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
3-4	Mat. Med. Lect.	Mat. Med. Lect.	Mat. Med. Lect.
4-5	Mat. Med. Recit.	Chemistry Recit.	^{help} Pharmacy Recit.
5-6	Pharmacy Recit.	Pharmacy Recit.	Mat. Med. Recit.

UNIVERSITY CLASS JUNIOR YEAR

Lecture and recitation courses extending throughout the year.

Section A

	<i>Monday</i>	
2-3	Anal. Chem. Lect. <i>Theories of ch ?</i>	<i>Theories of Chem</i>

Tuesday

9-10	Pharmacy Recit.	Chemistry Recit.
10-11	Pharmacy Lect.	Pharmacy Lect.
11-12	Chemistry Recit.	Pharmacy Recit.
12-1	Chemistry Lect.	Chemistry Lect.

Wednesday

12-1	Chemistry Lect.	Chemistry Lect.
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Laboratory Courses

All hours on Monday, Tuesday, Wednesday and Friday from 9-1 and 2-5, excepting those stated for lectures and recitations will be devoted to laboratory work.

Dept. Chemistry *14 wks*
 (Sept. 26-Jan. 13)
 Dept. Materia Medica *8 "*
 (Jan. 16-Mar. 9)
 Dept. Pharmacy *10 "*
 (Mar. 12-May 19)

Dept. Materia Medica
 (Sept. 26-Nov. 18)
 Dept. Pharmacy
 (Nov. 21-Feb. 10)
 Dept. Chemistry
 (Feb. 14-May 19)

UNIVERSITY CLASS SENIOR YEAR

Lecture and recitation courses extending throughout the year.

Tuesday

3-4	Analytical Chemistry Lect.
4-5	Food Analysis Lect.

Wednesday

11-12	Pharmacy Lect.
2-3	Biological Chemistry Lect.
3-4	Physiology Lect.

Laboratory Courses

All hours on Monday, Tuesday, Wednesday, Thursday and Friday from 9-1 and 2-5, excepting those stated for lectures will be devoted to laboratory work.

Analytical Chemistry, Sept. 26-Nov. 18
 Food Analysis and Toxicology, Nov. 21-Jan. 27
 Pharmacognosy and Taxonomy, Jan. 30-Mar. 23
 Pharmacy, Mar. 26-May 18

8 weeks each

Sept 26 - 1

ACADEMIC CALENDAR

1927

- May 23-June 4. Registration for second, third and fourth year candidates.
June 6-Aug. 8. Summer Laboratory Courses.
Aug. 15-Sept. 3. Summer Quiz Courses.
Sept. 1-3. Registration for first year candidates.
6-8. Supplementary Examinations.
26. Monday, Ninety-eighth Session begins. Second, Third and Fourth Year Classes assemble 9 a. m.
27. Tuesday, First Year Classes assemble 9 a. m.
Oct. 10. Monday, Evening Special Course Classes assemble 7:00 p. m.
Nov. 8. Tuesday, Election Day, Holiday.
24. Thursday, to November 26, Saturday, inclusive, Thanksgiving Holidays.
Dec. 22. Thursday, to

1928

- Jan. 4. Wednesday, inclusive, Christmas Holidays.
5. Thursday, Sessions resumed.
16-21. Mid-Year Examinations.
Feb. 13. Monday, Lincoln's Birthday, Holiday.
22. Wednesday, Washington's Birthday, Holiday.
Apr. 16. Monday, Last Day for applying for final examinations.
May 4. Friday, Evening Courses close.
14-19. Final College Course Examinations.
21-23. Final University Course Examinations.
24-31. Extra Pharmacy Laboratory for Second Year University Class.
30. Wednesday, First Year Class Exercises (Alumni Day).
31. Thursday, College Commencement.
June 6. Wednesday, University Commencement.

SCHEDULE OF EXAMINATIONS

Supplementary Examinations

FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1927

- June 25. Saturday, 1-4 p. m., Analytical Chemistry.
July 18. Monday, 9-12 a. m., Botany Laboratory.
Sept. 6. Tuesday, 9-12 a. m., Pharmacy and Latin.
Tuesday, 2-5 p. m., Dispensing Pharmacy.
7. Wednesday, 9-12 a. m., Botany, Physiology, Posology.
Wednesday, 2-5 p. m., Chemistry.
8. Thursday, 9-12 a. m., Analytical Chemistry.
Thursday, 2-5 p. m., Physics.

SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- June 25. Saturday, 1-4 p. m., Analytical Chemistry.
 July 18. Monday, 9-12 a. m., Macro- and Micro-Pharmacognosy.
 Sept. 6. Tuesday, 9-12 a. m., Pharmacy and Jurisprudence.
 Tuesday, 2-5 p. m., Dispensing Pharmacy and Accounting.
 7. Wednesday, 9-12 a. m., Materia Medica and Toxicology.
 Wednesday, 2-5 p. m., Pharmaceutical Chemistry.
 8. Thursday, 9-12 a. m., Analytical Chemistry.
 Thursday, 2-5 p. m., Organic Chemistry.

THIRD YEAR UNIVERSITY CLASS

- Sept. 6. Tuesday, 9-12, Department of Pharmacy.
 7. Wednesday, 9-12, Department of Materia Medica.
 8. Thursday, 9-12, Analytical Chemistry.
 Thursday, 2-5, Industrial Chemistry.

Mid-Year Examinations

1928 FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

- Jan. 17. Tuesday, 9-1, Botany.
 Tuesday, 2-5, Posology, Botany Laboratory.
 18. Wednesday, 9-12, English.
 Wednesday, 2-5, American Government.
 19. Thursday, 9-12, Pharmacy.
 Thursday, 2-5, Dispensing Pharmacy.
 21. Saturday, 9-1, Physics, Chemistry.
 Saturday, 2-5, Analytical Chemistry.

SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- Jan. 16. Monday, 9-12, Materia Medica, Toxicology.
 Monday, 2-5, Pharmacognosy.
 18. Wednesday, 9-12, Analytical Chemistry.
 Wednesday, 2-5, Chemistry.
 20. Friday, 9-12, Pharmacy.
 Friday, 1-3, Dispensing Pharmacy.
 Friday, 3-5, Commercial Pharmacy.

Final Examinations

FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1928

- May 15. Tuesday, 9-12, Botany, Posology.
 Tuesday, 2-5, Chemistry.
 17. Thursday, 9-12, Physics.
 Thursday, 2-5, Pharmacy and Pharmaceutical Latin.
 19. Saturday, 9-12, English.
 Saturday, 2-5, American Government.

SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- May 14. Monday, 9-12, Materia Medica, Toxicology.
Monday, 2-5:30, Pharmaceutical Jurisprudence and Commercial Pharmacy.
16. Wednesday, 9-12, Pharmacy.
Wednesday, 2-5, Chemistry.
18. Friday, 9-12, Univ. Physics.

UNIVERSITY CLASSES

- May 21. Monday, 9-12, Junior and Senior Pharmacy.
Monday, 1-4, Junior and Senior Analytical Chemistry.
22. Tuesday, 9-12, Junior Organic Chemistry; Senior Food Analysis and Toxicology.
~~Tuesday, 1-4, Junior and Senior Dispensing Pharmacy.~~
23. Wednesday, 9-5, Senior Biological Chemistry and Physiology.

SYNOPSIS OF STUDIES SUBSEQUENT TO THE SESSION OF 1927-1928

COLLEGE CLASS

First Year (The same as for 1927-1928)

Second Year

		Class Hours	Laboratory Hours	Points
(Beginning with the Session of 1928-1929.)				
MM 61-62	Pharmacognosy	0	3	3
Chm. 75-76	Inorganic Chemistry	3	0	6
Chm. 53-54	Analytical Chemistry	0	3	3
Chm. 69	Physics	1	0	2
MM 65-66	Physiology and Hygiene	2	0	4
MM 81	Biology of Micro-organisms	1	1	3
Phr. 55-56	Practical Pharmacy	3	2	8
Phr. 57-58	Dispensing Pharmacy	1	1	3
Phr. 63-64	Commercial Pharmacy and Phar.			
	Jurisprudence	1½	1½	4½

Third Year

(Beginning with the Session of 1928-1929.)

		Class Hours	Laboratory Hours	Points
MM 105-106	Materia Medica	3	0	6
MM 121-122	Toxicology	1	0	2
Chm. 103-104	Organic Chemistry	3	0	6
Chm. 107-108	Analytical Chemistry	1	3	5
Chm. 129	New Remedies	1	0	2
Phr. 101-102	Manufacturing Pharmacy	2	3	7
Phr. 111-112	Dispensing Pharmacy	4	4	12
Phr. 123-124	Merchandising	3	0	6
MM 125-126	Pharmaceutical Sundries	1	0	2

UNIVERSITY CLASS

Second Year

(Beginning with the Session of 1928-1929.)

		Class Hours	Laboratory Hours	Points
MM 61-62	Pharmacognosy	0	2	2
MM 65-66	Physiology and Hygiene	2	0	4
MM 79-80	Bacteriology	1	2	4
Chm. 69	Physics	1	0	2
Chm. 75-76	Inorganic Chemistry	3	0	6
Chm. 53-54	Analytical Chemistry	0	3	3
Chm. 71	Physics Laboratory	0	2	2
Phr. 55-56	Practical Pharmacy	3	3	9

Phr. 57-58	Dispensing Pharmacy	1	2	4
Phr. 63-64	Commercial Pharmacy and Pharmacological Jurisprudence	1½	1½	4½
Coll. 77-78	German	5	0	10

Third Year

(Beginning with the Session of 1929-1930.)

		Class Hours	Laboratory Hours	Points
MM 105-106	Materia Medica	3	0	6
MM 121-122	Toxicology	1	0	2
MM 113-114	Pharmacognosy	0	2	2
Chm. 103-104	Organic Chemistry	3	0	6
Chm. 107-108	Analytical Chemistry	1	10	12
Chm. 130-131	Theories of Chemistry	1	0	2
Phr. 109-110	Advanced Pharmacy	3	5	11
Phr. 111-112	Dispensing Pharmacy	0	2	2
Coll. 115-116	Mathematics	5	0	10

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Columbia University Bulletin of Information

COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

ANNOUNCEMENT

1928-1929

MORNINGSIDE HEIGHTS
NEW YORK

Columbia University Bulletin of Information

Twenty-eighth Series, No. 48

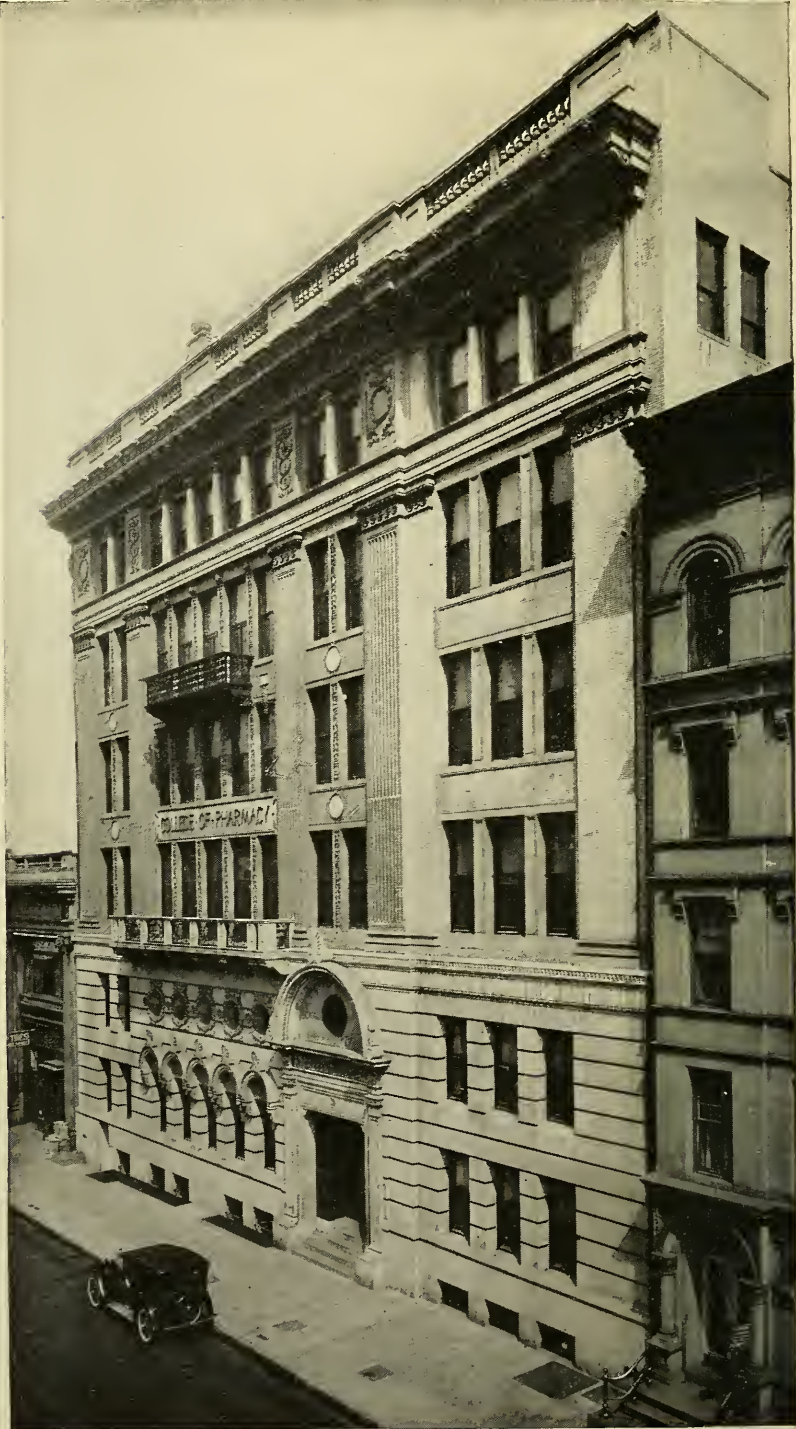
August 25, 1928

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1. Annual Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.
3. Other publications of the University, including the annual Directory of Officers and Students, are issued as Bulletins.

C. P. 23,000-1928

For special or more detailed information than is given in this announcement, applicants are requested to address the Registrar of the College, 115 West Sixty-eighth Street. His office hours are as follows: From September 1, 1928 to May 1, 1929, daily except Saturdays, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a. m. to 4 p. m.; Saturdays, 9:30 a. m. to 12 m.



COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

113-119 WEST SIXTY-EIGHTH STREET



Columbia University

Bulletin of Information

COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

ANNOUNCEMENT

1928-1929

MORNINGSIDE HEIGHTS
NEW YORK

This College reserves the right to make such changes in the curriculum, schedule, calendar and regulations appearing in this announcement, as circumstances may require.

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1928

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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1929

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1930

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OFFICERS AND TRUSTEES

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ALBERT E. STRATTON, 1929	HERMAN WALTER, 1930
THEODORE WEICKER, 1929	CHARLES FRIEDGEN, 1931
JACOB WEIL, 1929	ADOLPH HENNING, 1931
DAVID COSTELO, 1930	J. LEON LASCOFF, 1931
NATHANIEL NICOLAI, 1930	WILLIAM W. CONLEY, 1931
RICHARD H. TIMMERMANN, 1931	

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C. O. BIGELOW	V. CHAPIN DAGGETT
DAVID COSTELO	CHARLES W. HOLTON
Dean H. H. RUSBY, <i>ex-officio</i>	

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ADOLPH HENNING	EDWARD PLAUT
HENRY C. LOVIS	DAVID COSTELO
Dean H. H. RUSBY, <i>ex-officio</i>	

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WM. S. GORDON

CHARLES FRIEDGEN

CHARLES J. MCCLOSKEY

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ALBERT E. STRATTON

HERMAN WALTER

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C. O. BIGELOW

IRVING MCKESSON

EDWARD PLAUT

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DAVID COSTELO, *Chairman*

HENRY C. LOVIS

Dean H. H. RUSBY

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HENRY V. ARNY, Ph.M., Ph.D.....	<i>Associate Dean and Elected Member of the University Council</i>
GEORGE C. DIEKMAN, Ph.G., M.D.....	<i>Secretary</i>
VIRGIL COBLENTZ, A.M., Ph.D., Phar.M., F.C.S..	<i>Professor Emeritus of Chemistry</i>
GEORGE C. DIEKMAN, Ph.G., M.D.....	<i>Professor Emeritus of Pharmacy</i>
HENRY H. RUSBY, M.D., Ph.M.....	<i>Professor of Materia Medica</i>
HENRY V. ARNY, Ph.M., Ph.D.....	<i>Professor of Chemistry</i>
CURT P. WIMMER, A.M., Ph.M., Phar.D.....	<i>Professor of Pharmacy</i>
CARLTON C. CURTIS, Ph.D....	<i>Associate Professor of Botany, Columbia University</i>
CHARLES W. BALLARD, Ph.Ch., A.M., Ph.D.	<i>Associate Professor of Materia Medica</i>
HUGO H. SCHAEFER, Ph.C., Ph.D.....	<i>Associate Professor of Chemistry</i>
LEWIS N. BROWN, Phar.D.....	<i>Associate Professor of Pharmacy</i>
HERBERT C. KASSNER, B.S., Ph.D.....	<i>Associate Professor of Chemistry</i>
FANCHON HART, Ph.G.....	<i>Acting Associate Professor of Materia Medica</i>
HORACE N. CARTER, Ph.G., B.S.....	<i>Associate Professor of Pharmacy</i>
HARRY TAUB, B.S., A.M.....	<i>Assistant Professor of Materia Medica</i>
FREDERICK D. LASCOFF, Ph.G., B.S.....	<i>Assistant Professor of Pharmacy</i> <i>in Charge of Commercial Pharmacy</i>
JACOB DORFMAN, Ph.G., A.M.....	<i>Assistant Professor of Pharmacy</i>
WILLIAM MACSATA, Ph.Ch.....	<i>Assistant Professor of Chemistry</i>
ABRAHAM TAUB, B.S., A.M.....	<i>Assistant Professor of Physics and Chemistry</i>

INSTRUCTORS

LESLIE JAYNE, B.S.....	<i>Instructor in Analytical Chemistry</i>
PHILIP KERKER, A.B.....	<i>Instructor in Materia Medica</i>
SAUL KAYE, Ph.G.....	<i>Instructor in Pharmacy</i>
FRANK POKORNY, Ph.Ch.....	<i>Instructor in Materia Medica</i>
¹ JOSEPH E. ADAMS, Ph.Ch.....	<i>Instructor in Materia Medica</i>
ALEITA HOPPING, Ph.D.....	<i>Instructor in Physiology</i>
MAXWELL KARSHAN, B.S., Ph.D.....	<i>Instructor in Biological Chemistry</i>
WILLIAM KEENAN, Ph.G.....	<i>Instructor in Materia Medica</i>
MILTON D. SEWELL, Ph.G., B.S.....	<i>Instructor in Physics and Chemistry</i>

¹Absent on leave 1928-1929.

THEODORE FAILMEZGER, Ph.Ch.....	<i>Instructor in Chemistry</i>
JOSEPH P. MIALE, Ph.Ch.....	<i>Instructor in Pharmacy</i>
HELEN TIMMERMANN, B.S., Ph.D.	<i>Instructor in Materia Medica</i>
SAMUEL LIBERMAN, Ph.Ch., B.S.....	<i>Instructor in Chemistry</i>
VICTOR LEWITUS, Ph.G., B.S.....	<i>Instructor in Materia Medica</i>
RUDOLF HAUCK, Ph.Ch., B.S.....	<i>Instructor in Pharmacy</i>
HERMAN J. AMSTERDAM, Ph.G., B.A.....	<i>Instructor in Pharmacy</i>
CHARLES H. SOREN, Ph.G., B.S.....	<i>Instructor in Chemistry</i>
EDWARD ANZELMI, Ph.Ch.....	<i>Instructor in Chemistry</i>
MARGUERITE C. DIMLER, B.S.....	<i>Instructor in Physics and Chemistry</i>
DOMINICK FANELLI, Ph.Ch., B.S.....	<i>Instructor in Pharmacy</i>
LESTER C. DICK, Ph.Ch.....	<i>Instructor in Pharmacy</i>
HORACE T. F. GIVENS, Ph.Ch.....	<i>Instructor in Pharmacy</i>

LECTURERS

ISIDORE NEUSTAEDTER, Phar.D., LL.B.	<i>Lecturer in Pharmaceutical Jurisprudence</i>
GEORGE D. MCJIMSEY, M.A.....	<i>Lecturer in English and American Government</i>
ARTHUR H. INGENHUETT.....	<i>Lecturer in German</i>

UNIVERSITY OFFICERS OF ADMINISTRATION

FRANK DIEHL FACKENTHAL, A.B.....	<i>Secretary of the University</i>
ADAM LEROY JONES, Ph.D.....	<i>Director of University Admissions</i>
CHARLES C. WILLIAMSON, Ph.D.....	<i>Director of Libraries</i>
ROGER HOWSON, M.A.....	<i>Librarian</i>
DAVID M. UPDIKE, M.E.....	<i>Superintendent of Buildings and Grounds</i>
HENRY V. ARNY, Ph.D.....	<i>Librarian of the College of Pharmacy</i>
EDWARD J. GRANT, A.B.....	<i>Registrar of the University</i>
CHARLES S. DANIELSON.....	<i>Bursar of the University</i>
HENRY LEE NORRIS, M.E.....	<i>Director of Works</i>

COLUMBIA UNIVERSITY

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the School of Medicine with courses leading to the degree of Doctor of Medicine; the Schools of Mines, Engineering, and Chemistry, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; the non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy. In addition to these Schools and Faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; and the College of Pharmacy of the City of New York, with courses leading to the degrees of Pharmaceutical Chemist and Bachelor of Science.

The University maintains three sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standard of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The *Announcements* of each College or School, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

The *Announcement* of each School contains a schedule of fees and expenses for the courses in that School.

LIBRARY

The libraries of the University contain about 1,025,000 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture rooms and laboratories. The Avery Architectural Library, the Law Library, the Ella Weed Library of Barnard College, Teachers College Library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

RESIDENCE HALLS

There are four residence halls for men on South Field: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Field, with accommodations of room and board for 360 students in the graduate and professional schools and Tompkins Hall, situated on Claremont Avenue in immediate proximity to the campus, with a capacity for 100 graduate students, are residence halls for women.

All the University residence halls, for both men and women, are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

Detailed information and advice concerning desirable rooms and boarding places in the vicinity of the campus for both men and women may be obtained by writing to the Residence Bureau, Room M, Earl Hall.

In addition to the dining-halls in John Jay and Johnson the University maintains the following cafeteria restaurants (service *à la carte*) which furnish wholesome food at moderate rates: The Commons (men and women) University; Barnard Hall Lunch Room (women) Barnard Hall; Teachers College Cafeteria (men and women) Grace Dodge Hall, 121 St. The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.

EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the Appointments Office, Residence Bureau, Men's Residence Halls Office (where may also be found the Director of Earl Hall who is in charge of social affairs on the campus), the Trophy Room and Lobby, containing team pictures and trophies. On the upper floor are located offices for the Chaplain of the University and the Director of Religious Activities, and an auditorium seating 400 people which is available for student receptions and dances. The first floor (entrance from Broadway) is occupied by the offices of the University Medical Officer.

MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Medical Officer.

THE COLLEGE OF PHARMACY

IMPORTANT ANNOUNCEMENTS

Centennial Celebration

Owing to our change from a two- to a three-year course, there will be no commencement exercises for the degree of Graduate in Pharmacy at the close of the session of 1928-1929. It so happens that this *lapsus* occurs upon the occasion of the One Hundredth Anniversary of the founding of our College, so that appropriate Centennial Celebration Exercises may substitute the usual Commencement Program. The graduates of our University Courses will participate as usual in the Columbia Commencement Exercises. The College Centennial will be celebrated, partly in connection with those exercises, and partly by special ceremonies at the College and upon the University grounds. Due announcement of the complete program will be made at the proper time.

Graduate Course

Beginning with the session of 1928-1929, a graduate course of two years will be offered. This course, leading to the degree of Doctor of Pharmacy, will be open to Graduates with the Baccalaureate Degree, conferred by this school or by other schools of pharmacy maintaining equivalent courses of study. The course will consist of two full years of study in residence. Thirty hours weekly will be occupied in research work in the department representing the major subjects, and three hours weekly in each of the other two departments. For this session, not more than two students will be matriculated in each of the three departments, both positions in the Department of Pharmacy being already filled.

Fourth Year, University Course

Due to lack of accommodations it will be possible for the year 1928-1929 to accept but a limited number in this class.

GENERAL STATEMENT

The ninety-ninth annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 24, 1928.

THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the City. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus and Amsterdam Avenue lines connect with nearly all surface lines in the City. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College Building was erected in 1894 after a study of the principal buildings of the kind in this country and abroad. So great has been the increase in the

applications for admission that it was found necessary in 1923 to provide greater accommodations in the form of an additional connecting building.

In its planning, two principal objects were kept in view; first, provision for a large increase in the membership of the first and second-year classes; second, greatly increased and improved facilities for the work of the higher classes. In connection with the latter, extensive provision has been made for research work, by both faculty and special students. Our Library has also been greatly improved, the entire lower floor of the new building having been reserved for its accommodation.

THE LIBRARY

The Library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy. Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the General Library of Columbia University, on Morningside Heights, the Library of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great Library of the Surgeon-General's office at Washington.

The Library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the Library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library copies of the textbooks in use by the College may not be removed from the library.

INFORMATION BUREAU

The Information Bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the Bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service.

1. Telephone inquiries will be answered without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the Information Bureau, Trafalgar 1733, and will receive information immediately if it is accessible.
2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.
3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.

4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical or botanical periodicals will be prepared for those desiring to pay for such service.

5. As in the past, all visitors to the Library, desiring to do their own research work, will be given courteous attention.

EMPLOYMENT FOR STUDENTS

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

The general plan adopted may be briefly stated as follows: Each pharmacist engages both a first and second year student, who shall work alternately three days during the week and half a day on Sunday. This allows the students half their time for College work and necessary rest. The College course lectures are arranged so as to harmonize with this plan.

Any student wishing to secure employment should upon entering College communicate with the Registrar.

Within easy reach of the College are some three thousand pharmacies, where students who have had some experience in pharmacy may obtain employment with salary sufficient to pay the whole or a large part of their expenses while attending College.

APPLICATION FOR ADMISSION

Every candidate for admission to the Pharmacy School is required to file with the Registrar of the College of Pharmacy a personal application and a transcript of his high school record, blank forms for which can be had upon application. He is also required to file an approval of his application for a pharmacy student qualifying certificate *before he can be accepted*, and he must secure the apprentice license before his matriculation can be considered complete.

NEW YORK STATE QUALIFYING CERTIFICATE

According to a provision of the New York State Pharmacy Law, no student can be permitted to register for the course in pharmacy unless he is at least seventeen years of age, and has graduated from an accredited four-year high school course, or who has covered courses acceptable to the Department of Education as a full equivalent thereof. The fulfillment of this requirement must be officially guaranteed by a qualifying certificate issued by the New York State Department of Education. If the applicant is entitled to receive the certificate, he will be so notified by letter; which letter should be presented to the Registrar of the College of Pharmacy. Blank forms for making application for the certificate may be secured either from the Registrar's office or from the Department of Education at Albany.

APPRENTICE LICENSE

The apprentice license should be applied for when the candidate commences his experience in a pharmacy or drug store. Those who have had no experience

before entering the pharmacy school, or whose experience has been in a drug store or pharmacy outside of New York State, will make application for their licenses through the school during the first week of the course, the Registrar acting as "preceptor." Blank forms for making application for the apprentice license may be secured either from the Registrar's office or from the Board of Pharmacy at Albany, N. Y.

HEALTH CERTIFICATE

All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. Appropriate blanks are furnished by the Registrar of the college.

COURSES OFFERED

Two regular courses of study are offered, known respectively as the College Course and the University Course, and three evening courses in the Departments of Materia Medica, Pharmacy and Chemistry. A Summer Preparatory Course is provided, designed to enable students so desiring to better prepare themselves for the fall supplementary examinations.

THE COLLEGE COURSE

This course now comprises three full years of professional work, and is designed to fit the graduate for meeting the educational requirements of the Boards of Pharmacy of most of the States. The fundamental idea of this increase in time is generally accepted as being that of improving the quality of the work done, rather than of providing a large amount of additional work, this improvement applying particularly to the practical features of the course. The precise object of a course leading to the degree of Graduate in Pharmacy being to prepare such graduates for meeting the conditions of service in a retail pharmacy, the greater portion of the increased time has been assigned to the department of pharmacy, and to those features of the work of the other departments which are directly contributory thereto. After a careful study of the requirements, we have concluded that the time officially assigned for this course is insufficient, and we have added 128 hours for laboratory work in commercial and dispensing pharmacy.

The accomplishment of the better training that is sought necessarily calls for the introduction of new topics in the existing syllabi, and we call special attention to the following items.

We have always regarded a course in materia medica as being incomplete that did not include instruction in the apparatus, equipment and appliances included under the title of sick-room supplies, but no opportunity has heretofore offered for practical instruction of this kind. In our reorganized course 32 hours will be devoted to explaining and illustrating the nature and use of articles of this class. Although technically pertaining to the subject of materia medica, this instruction forms an important part of the students' preparation in commercial pharmacy.

Another qualification that we deem requisite for every well equipped pharmacist is a general knowledge of the nature and effects of bacteria in their relations with pharmacal practice. While we do not regard the conduct of a bacteriological laboratory as pertaining to the business of the ordinary pharmacist, we regard as necessary some knowledge of the principles of bacterial decomposition, sterilization and immunization, and 64 hours have been assigned for instruction in those subjects. While this subject, relating to the activities of plants, pertains technically to botany, it also has close relations with practical pharmacy.

One of the results of this addition of a third-year class will be a reduction in the number of matriculants each year, since the total capacity of the school is strictly limited. We are therefore obliged to announce that not more than 275 new students can be accepted for the session of 1928-1929.

THE UNIVERSITY COURSE

The principal changes, inaugurated in this course in 1927, consist in

1. An increase in the required attendance to five days, with an average of 32 hours, per week.

2. The introduction of courses of instruction in English, American Government, foreign language and mathematics, aggregating, during the first three years, a total of 32 points or 16 hours. This instruction given by teachers selected by Columbia College, is equivalent to one year's work in that institution.

3. The meeting by matriculants of the full entrance requirements of Columbia College.

4. The B.S. in Pharmacy Course, heretofore given by this school, has not been regarded as on a par with that of the college of liberal arts and science, however complete its professional character, but the course now offered possesses the full number of points of non-professional work of the ordinary baccalaureate course, in addition to that of a professional character.

5. The Department of Health of the City of New York has placed the Bachelor of Science in Pharmacy, graduating from this course, in the position of being eligible to conduct a bacteriological laboratory or to fill similar positions.

6. Owing to the amount of space and equipment required for the performance of the work of this course, the number of matriculants for this year is limited to thirty.

The attention of prospective students is called to the increasing call for graduates of advanced courses, to fill other professional positions. The general application of federal, state and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which, formerly, were often left to incompetent and irresponsible employees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

To meet these higher requirements, three and four year courses of study, leading respectively to the degrees of Pharmaceutical Chemist (Ph.Ch.) and Bachelor of Science in Pharmacy (B.S. in Phar.), have been established. ? reorganized ?

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. Members of the University class only are recognized as students of the University, and certain of the University privileges are open only to them.

2. The University Class attends on five days weekly, instead of three, as does the College Class, and the course includes regular work in academic subjects, conducted by special instructors supplied by the Dean of the Faculty of Columbia College, this work receiving full credit from the University toward the baccalaureate degree.

The introduction of these courses to our University classes has proved highly successful, especially as to the reception accorded them by the students themselves. Not only has this instruction been highly appreciated by the University Class, but there have been many inquiries as to the possible future introduction of the work to the College Course.

3. For the University Class, the College provides a thorough course of laboratory instruction in advanced Chemistry, Pharmacy and Physics and special courses in Microscopy and Bacteriology, consisting of both theoretical and laboratory instruction.

4. Not only are the degrees of Pharmaceutical Chemist and Bachelor of Science recognized as of higher rank than that of Graduate in Pharmacy, but the three and four year courses for which they are awarded qualify its recipients for many lines of pharmaceutical work that are not open to graduates from the College Course.

5. The degrees of Pharmaceutical Chemist and Bachelor of Science in Pharmacy are conferred by the University, that of Graduate in Pharmacy by the College.

ENTRANCE REQUIREMENTS

COLLEGE COURSE

The admission to this course is conditional upon the limitations of available space. For many years past, the College has not been able to accommodate all who have applied for admission. For the session of 1928-1929, we shall have accommodations for only 275 new candidates for the degree of Ph.G.

The requirements for admission to the College Course are the same as those of the New York State Department of Education for the Qualifying Certificate, under the limitations set forth above.

THE UNIVERSITY COURSES

These are courses of full academic years (September to June) leading to graduation with the other departments of the University, and to the degree of Pharmaceutical Chemist, conferred by the University, at the end of the third year, and to that of Bachelor of Science in Pharmacy at the end of the fourth. It is to be noted here that for the session of 1928-1929 a limited number of Fourth Year Students can be accommodated.

The requirements for admission to this course are the same as those for Columbia College. The student must be seventeen years of age, must have graduated

from a high school within or outside of the State of New York that is accredited by the Education Department of this State, and must present a pharmacy student qualifying certificate from the Education Department of this State, based on 72 academic counts, equal to 15 Columbia units.

Under this course, two programs are offered, one leading to the degree of Pharmaceutical Chemist, and one to the degree of Bachelor of Science in Pharmacy.

The evidence of adequate preparation for admission to the University Course in the subjects required on the part of candidates who have not completed a year of college work, *includes both examination and school records*, and are the same as those for admission to Columbia College.

The subjects which candidates may offer in fulfilment of these requirements are outlined below. (A "unit" implies the study of a subject for a time equivalent to five hours weekly for one year.)

PREScribed SUBJECTS

All candidates *must* offer:

ENGLISH	{	1 (grammar and composition)	2 units
		2 (literature)	1 unit
MATHEMATICS	{	ai (algebra to quadratics)	1 unit
		aii (quadratics and beyond)	1 unit
		c (plane geometry)	1 unit

EITHER

(1) Latin 4 units

OR

(2) { Latin, Greek, French, German, Spanish or Italian 3 }
 { Physics or Chemistry 1 } 5 units
 { History 1 }

ELECTIVE SUBJECTS, to make up 15 units 4 or 5 units

¹ Greek, 3 units, may be substituted for Latin, in which case 6 elective units must be offered.

ELECTIVE SUBJECTS

Group I

The candidate may offer any of the following subjects not included among his prescribed subjects, without other restriction than that to offer an advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject.

Biology—See Zoology

The English Bible	1 unit
Elementary Greek	2 or 3 units
Elementary History	1 or 2 units
Drawing (Freehand or Mechanical)	1 unit
Music	1 unit
Intermediate French	1 unit
Intermediate German	1 unit
Intermediate Italian	1 unit
Intermediate Spanish	1 unit

Advanced French	1 unit
Advanced German	1 unit
Social Science	1 unit
Advanced Spanish	1 unit
Advanced Mathematics (College)	$\frac{1}{2}$, 1 or $1\frac{1}{2}$ units
and in the case of candidates not offering 4 units in Latin:	
Elementary Latin	2 or 3 units

Group II

The candidate may offer not more than 4 units in all from the four subjects following:

Elementary French	2 units
Elementary German	2 units
Elementary Italian	2 units
Elementary Spanish	2 units

Group III

The candidate may offer not more than 3 units in all from the six subjects following:

Botany	1 unit
Chemistry	1 unit
Physics	1 unit
Physiography	1 unit
Shopwork	1 unit
Zoology	1 unit

NEW METHOD

Under the "New Method," candidates whose school and character records are entirely satisfactory, may meet the examination requirements by means of a psychological test. The school course must include three units in English, three in Mathematics (elementary and intermediate algebra and plane geometry), and at least three units in a foreign language, ancient or modern. It must have been concerned primarily with Languages, Science, Mathematics and History.

OLD METHOD

Under the "Old Method," the examination requirements for admission may be satisfied by any one of the three following means, or any approved combination thereof.

1. By the examinations of the College Entrance Board, held in June of each year at Columbia University and at about 150 other educational centers in the United States and abroad.

2. By the examinations conducted at Columbia University in September of each year, by the Director of University Admissions.

(The examination grades in connection with the above two methods are interpreted in the light of the record which students have made in school.)

3. By the examinations given in the high schools by the Education Department of the State of New York to students who have satisfactorily completed

certain courses in these high schools. In these examinations, seventy-five per cent will ordinarily be regarded as the lowest passing mark.

For candidates qualifying for admission on the basis of examinations before Columbia University or the College Entrance Board, two methods are open:

a. Examination in fifteen units. A candidate may offer examinations in fifteen units as evidence of his preparation in secondary school subjects.

b. Four examination plan. A candidate who has completed a satisfactory secondary school course with a high degree of proficiency may, by special permission, satisfy the examination requirement by means of "comprehensive examinations" in not less than four subjects including those prescribed for admission.

Candidates entering by the old method are required to take the psychological examination for purposes of record only.

Those contemplating the September, 1928 examinations, must file their applications with the Secretary of Columbia University on or before September 10, 1928. Those who contemplate taking the June, 1929 examinations, must file their applications with the Secretary of the College Entrance Board at 431 West 117th Street, New York, N. Y., on or before May 27, 1929, for points on or east of Mississippi River; May 20, 1929, for points West of Mississippi River; May 6, 1929, for points outside U. S. or Canada. Blank forms of application for either series of examinations may be secured from the respective secretaries.

Every candidate for admission to the University Course should secure a copy of the current *Bulletin on Entrance Examinations and Admission* which may be had upon application to the Secretary of the University.

ADMISSION TO ADVANCED STANDING

Candidates may be admitted to advanced standing only upon a satisfactory record from their school of previous residence. Provided they are eligible for the Pharmacy Student Qualifying Certificate required by the New York State Department of Education, candidates who have completed, without condition, corresponding courses in a Pharmacy School registered by the State Education Department, are eligible for admission to the second, third or fourth years, respectively.

FEES

The fees to be paid by students are subject to change at any time in the discretion of the Trustees. The following schedule is in force for the 1928-1929 session for students accepted in any of the regular courses leading to degrees.

Regular Courses	College Courses	University Courses	
	1st, 2nd and 3rd Years	1st, 2nd and 3rd Years	4th Year
Registration	\$5.00	\$5.00	\$5.00
Breakage Deposit	10.00	10.00	10.00
Student Activities	10.00	10.00	not required
Examination	10.00	10.00	15.00
Tuition	250.00	300.00	300.00

Special Courses. Students desiring to pursue individual courses as special students will be required to pay at the rate of \$7.50 per point.

Summer Courses. The fee for any laboratory course is \$25. for first-, second- and third-year work in the College Course. In the University Course, the fee is \$25. for first- and second-year work and \$50. for third- and fourth-year work.

The fees for quiz courses are computed on the basis of \$15.00 for a two-hour subject and \$7.50 for a one-hour subject.

Evening Courses. The fees for the various evening courses will be found among the descriptions of these courses, beginning on page 44.

Books and Supplies. It is estimated that an expenditure of \$50. will cover the cost of the textbooks and necessary apparatus required for the entire College Course, and of \$75. for the entire University Course for the Ph.Ch. degree. The heaviest expenditure in all cases will be in the first year; many of the required reference works being used also in subsequent years.

METHODS OF PAYMENT

Regular Courses

One of three methods for the payment of the tuition fee for the year may be elected by the candidate, as indicated below. In this connection, it is to be noted that all are required to pay the registration fee, the breakage deposit, the student activities fee and the first installment of the tuition fee at the time of registration. The dates for registration in the various classes will be found in the academic calendar on page 73.

A. Pay in full at the time of registration.

B. Pay one-half of the tuition fee at the time of registration, and the balance on or before January 3, 1929. Under this arrangement, an additional \$3. must be added to the first installment.

C. Pay one-third of the tuition fee at the time of registration; one-third on or before December 3, 1928, and the balance on or before February 11, 1929. Under this arrangement, an additional \$5.00 must be added to the first installment.

A student, electing Plan B or C makes himself liable to suspension from further attendance if he fails to meet the payments when due.

Second-, third- and fourth-year students, who register after the last day set for their registration (see Academic Calendar) are required to pay an additional fee of \$5.00 for late registration.

Examination Fees. Dates upon which fees for examination in course are required will be found in the Academic Calendar.

The rate for re-examination is on the basis of \$5.00 for each subject in September and \$10. for the entire series in the spring.

Rebates. The registration and student activities fees shall not be subject to rebate.

In the case of the total withdrawal of a student from the College, a partial return of the tuition fee may be authorized by the Trustees, but in no case shall more than two-thirds of the total charge for that year be returned.

Special, Summer and Evening Courses. Students registering in any of these courses are required to pay the tuition and other fees *in advance*.

METHOD OF INSTRUCTION

The instruction of each class during the first and second years of the College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College. During the third year, an additional half-day must be devoted to work in the pharmacy laboratory. All students who can do so are urged to devote their third year wholly to College work.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.

REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the Bulletin Boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

AUTHORITY OF THE DEAN

The Dean is the executive officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

REQUIREMENTS FOR ALL REGULAR STUDENTS

Attendance

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third- and fourth-year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during ninety per cent of the hours of instruction in each year, and during eighty per cent of those of each exercise. The lectures and recitations in a subject constitute one "exercise." For being late twice at daily opening the student will be charged with one absence. For failure to comply with this condition, the student will forfeit the privilege of presenting himself for examination.

Computation of attendance records will be based upon the total number of hours assigned a given course (page 16) during the academic year.

Advancement in Classes

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the passing mark being seventy-five per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations—but *not those* who have failed, without excuse, to present themselves thereat—will be allowed to undergo a single supplementary examination to be held as announced on page 73, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course, provided, however, that such students may be refused re-matriculation if, in the judgment of the faculty, they are not qualified to be students of this College. A student who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer, except in special cases.

As an aid to those students who are required to take a supplementary examination, summer quiz courses are held as per schedule on page 42. By a regulation of the State Education Department, students failing in more than one subject must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 1, 1928.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examinations on paying an additional fee of \$10 and complying with all other requirements.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again.

All students must obtain a rating of seventy-five per cent or higher in every department in which they may be examined. Any student failing in one or more departments, but not in laboratory courses, may present himself for

re-examination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without re-examination in the other departments. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 42.

Students of the Third Year University Class failing in a laboratory course of a single department may be permitted to remove this failure during the Summer Laboratory Session. Students of this class failing in the laboratory courses of more than one department will be required to repeat in full those courses in which they fail, during the next regular session.

PRIZES AND SCHOLARSHIPS

The College reserves the right to withhold the award of any scholarship or prize, if in its opinion, no candidate has exhibited qualifications justifying the award.

HONOR ROLL. The College Classes and the University Classes shall have separate and distinct honor rolls. Those securing an average of 90 per cent or over in the year's work, shall constitute the honor rolls of their respective classes.

'TRUSTEES' PRIZES. The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100. each, for the highest rating secured in competitive examination in the three departments of Chemistry, Pharmacy and Materia Medica. These competitive examinations are open to those members of the graduating class who have attained positions on the honor roll of the *College Course*. (If the number of these honor students be less than thirteen, a sufficient number of graduates having the next highest averages to make that number shall be permitted to compete for these prizes). A certificate, stating the honor for which the prize has been awarded, is also presented to each of the recipients.

ALUMNI ASSOCIATION PRIZES. The Alumni Association of the College of Pharmacy offers annually a gold, a silver and a bronze medal to be presented at Commencement to the three students having respectively attained the first, second and third highest standings in all branches taught during the third year of the *College Course*.¹

Five additional prizes are awarded annually by the Association on "Alumni Day" to members of the first- and second-year classes of the *College Course*, as follows: *Torsion Balance*, awarded to that second-year student who has secured the highest standing during the work of the two years; a copy of "*The United States Dispensatory*" to that student who has secured the highest standing during the work of the second year; a copy of Culbreth's "*Materia Medica*" awarded to that student securing the second highest standing in the work of the second year; a copy of Army's "*Principles of Pharmacy*" to that student who has secured the highest standing in the work of the first year, and a copy of Sadtler, Coblentz & Hostmann's "*Pharmaceutical Chemistry*" to that student who has secured the second highest standing in the work of the first year.

¹Not to be awarded in 1929.

In the event that the winner of the Torsion Balance has the highest record for the second year, then the U. S. Dispensatory and Culbreth's *Materia Medica* shall be awarded respectively to the second and third member of the honor roll.

Note: The award of the Torsion Balance will be omitted for the year 1929.

MAX J. BREITENBACH PRIZE. A cash prize of \$200, accompanied by a certificate, offered annually for the highest proficiency in the Junior (third year) University Class. This prize is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach for many years a devoted trustee.

KAPPA PSI PRIZE. The Gamma Chapter of the Kappa Psi Fraternity offers annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

LILLIAN LEITERMAN PRIZE. A gold medal, offered annually by Miss Lillian Leiterman (1911), to that woman member of the graduating class who has maintained the highest standing throughout the entire three years of the *College Course*.

J. LEON LASCOFF PRIZES. Life membership in the American Pharmaceutical Association and in a State Pharmaceutical Association, offered annually by Trustee J. Leon Lascoff to the two members of the graduating class in the *College Course* who have been prominent in student activities, who have maintained a high degree of general scholarship, and who are adjudged by the Faculty to be worthy of such awards.

TRUSTEES' SCHOLARSHIPS. To the four students who maintain the highest proficiency in their respective classes during the first and second years of the College and University Courses, the Board of Trustees of the College annually award scholarships for one year's tuition, to be applied to the session following of their respective courses.

GEORGE J. SEABURY SCHOLARSHIP. This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, Mr. George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the Senior (fourth) year of the University course, of that member of this class who has maintained the highest standing during the three years, provided, however, that such student is eligible for the degree of B.S. in Phar., and shall not receive both this scholarship and the Max J. Breitenbach prize.

ISAAC PLAUT FELLOWSHIP. This Fellowship for the encouragement of graduate study and original research was founded by Mr. Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this Fellowship must have secured the degree of B.S. in Pharmacy at this school, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this College who shall have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

¹Not to be awarded in 1929.

The Fellow shall be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He shall attend a foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and shall pursue a course of study approved by the Faculty. At the close of his incumbency he shall present to the Faculty a written report of his work.

The Fellowship payment shall be made in three equal installments, one on June 15, one on November 1, and one on March 1, provided that the Fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he shall forfeit all further privileges and emoluments conferred upon him by his appointment to the Fellowship, and the Trustees of the College of Pharmacy may declare the Fellowship vacant.

N.B.—Competition for the Kappa Psi Prize, the Seabury Scholarship and the Plaut Fellowship is open only to those students who take their entire course at this College.

Since its foundation, the following Plaut Fellows have continued their studies towards the degree of Ph.D.

Moritz A. Dittmar, B.S., 1920, Ph.D., University of Bern, Switzerland, 1922. Assistant Superintendent of the laboratories of Lehn and Fink.

Herbert C. Kassner, B.S., 1921, Ph.D., University of London, England, 1923. Associate Professor of Chemistry, Columbia University, College of Pharmacy.

Helen A. Timmermann, B.S., 1925, Ph.D., University of London, England, 1927. Instructor in Materia Medica, Columbia University, College of Pharmacy.

Fred Levine, B.S., 1927, Samuel Goldberg, B.S., 1928, graduate students at the University of London, England.

LOUIS SPENCER LEVY RESEARCH SCHOLARSHIP. This scholarship has been provided by Mr. Louis Spencer Levy for a period of two years, beginning with the session of 1928–1929. It affords free tuition to that B.S. or Ph.Ch. who is deemed qualified by the Faculty to do research work and who will devote the greater portion of his time to investigations of the effect and usefulness of ultra-violet radiations in the field of essential oils and perfume materials, this work to be done under the direction of the head of the Department of Pharmacy.

¹E. R. SQUIBB PRIZE. This is an annual cash prize of \$100., offered by Messrs. E. R. Squibb & Sons, in memory of Dr. E. R. Squibb. It is awarded to that Graduate in Pharmacy who exhibits the greatest proficiency in Analytical Chemistry during his third year, as determined by the laboratory records.

¹LOUIS DOHME PRIZE. This is an annual cash prize of \$100., founded by Mr. Ernest Stauffen, in memory of Mr. Louis Dohme. It is awarded to that Graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopœia and National Formulary, as determined by the laboratory records and examinations.

¹JOSEPH WEINSTEIN PRIZE. This prize consists of a compound microscope and is established by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that Graduate in Pharmacy who has exhibited

¹Not to be awarded in 1929.

the greatest proficiency in Analytical Chemistry during the three years, as determined by the laboratory records, and who has not secured any other prize.

¹ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that Graduate in Pharmacy who has obtained the highest general average in practical laboratory work during the third year.

¹LEHN and FINK PRIZE. This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the Graduate in Pharmacy attaining the highest standing at the examinations in Pharmacy.

¹WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that member of the graduating class of the *College Course* who has attained the highest general average in practical laboratory work, during the three years in the Department of Pharmacy.

¹GERMAN APOTHECARY'S ASSOCIATION PRIZE. In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited during the final year of the *College Course* the greatest proficiency in the compounding of prescriptions.

¹OLSHANSKY MEMORIAL MEDAL. This is a gold medal, founded by the students of this school in attendance upon the session of 1923-1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in the final year of the *College Course* in the subject of Dispensing Pharmacy.

¹Not to be awarded in 1929.

SYNOPSIS OF STUDIES FOR THE SESSION OF 1928-1929

(For information regarding subsequent years, see p. 76)

COLLEGE COURSE

First Year

		Class Hours	Laboratory Hours	Points
MM 1-2	Botany	2	0	4
MM 3-4	Botany	1	4	6
MM 5-6	Posology	1	0	2
Chm. 1-2	General Physics	2	0	4
Chm. 3-4	Inorganic Chemistry	3 ~~X~~	0	7 6
Chm. 5-6	Analytical Chemistry	1 ~~X~~	3	4
Phr. 1-2	Theory of Pharmacy	3	0	6
Phr. 3	Practical Pharmacy	1	3	2½ - 1st S
Phr. 8	Dispensing Pharmacy	1	3	2½ 2nd S
		24 hrs		

Second Year

MM 53-54	Pharmacognosy	0	3	3
MM 57-58	Human Physiology and Hygiene	2	0	4
MM 59-60	Biology of Micro-Organisms	1	1	3
Chm. 51-52	General Physics	1	0	2
Chm. 55-56	Inorganic Chemistry	3	0	6-
Chm. 59-60	Analytical Chemistry	0	3	3-
Phr. 51-52	Theory of Pharmacy	3	0	6
Phr. 53	Practical Pharmacy	1	3	2½ 1st per
Phr. 56	Dispensing Pharmacy	1	3	2½ 2nd A
Phr. 59-60	Pharmaceutical Jurisprudence and Commercial Pharmacy	1 ~~X~~	2 ~~X~~ 2	4 ~~X~~ See p.
		24 hrs		

UNIVERSITY COURSE

First Year

MM 1-2	Botany	2	0	4
MM 7-8	Posology	½	0	1
MM 9-10	Plant Morphology and Histology	1	4½	6½
Chm. 1-2	General Physics	2	0	4
Chm. 3-4	Inorganic Chemistry	3 ~~X~~	0	7 6
Chm. 7-8	Analytical Chemistry	1 ~~X~~	3	4
Phr. 1-2	Theory of Pharmacy	3	0	6
Phr. 5	Practical Pharmacy	1	5	3½ 1st h
Phr. 10	Dispensing Pharmacy	1	5	3½ 2nd h
Coll. 1-2	English	3	0	6
Coll. 3-4	American Government	3	0	6

Second Year

		Class Hours	Laboratory Hours	Points
MM 55-56	Macroscopic Pharmacognosy	0	2	2
MM 57-58	Human Physiology and Hygiene	2	0	4
MM 61-62	Bacteriology	1	2	4
Chm. 51-52	General Physics	1	0	<u>2</u>
Chm. 54	Practical Physics	0	~~1~~ 4	2
Chm. 55-56	Inorganic Chemistry	3	0	6
Chm. 57-58	Analytical Chemistry	0	3	3
Phr. 51-52	Theory of Pharmacy	3	0	6
Phr. 53	Practical Pharmacy	1	3	2½
Phr. 58	Dispensing Pharmacy	1	7	4½
Phr. 59-60	Pharmaceutical Jurisprudence and Commercial Pharmacy	~~1~~ 4	2 ~~1½~~	~~4½~~
Coll. 51-52	German	5	0	10

Third Year

MM 105-106	Bacteriology	1	2	4
MM 107-108	Morphology and Taxonomy of Crypto- gams	1	2	<u>4</u>
Chm. 101-102	Theories of Chemistry	1	0	2
Chm. 103-104	Organic Chemistry	3	0	6
Chm. 105-106	Analytical Chemistry	0	10	10
Phr. 109-110	Advanced Pharmacy	2	0	4
Phr. 111-112	~~Dispensing Pharmacy~~ L 4 B	0	5	5
Phr. 113-114	Practical Dispensing Pharmacy	0	2	2

Fourth Year

* MM 151-152	Applied Pharmacognosy	¾	5	6½
* MM 153-154	Botanical Taxonomy	0	1½	1½
MM 155-156	Human Physiology	1	0	2
Chm. 151-152	Inorganic Quantitative Analysis	1	8	10
Chm. 153-154	Food Analysis and Toxicology	1	8	10
Chm. 155-156	Biological Chemistry	1	0	2
Chm. 157-158	Chemical Bibliography	1	0	2
Phr. 151-152	Advanced Pharmacy	~~1~~ 4	0	~~3~~ 2
* Phr. 153-154	Pharmaceutical Assaying	0	7	7

hours have been assigned only one number as
courses were of 8 weeks duration only

COURSES OF INSTRUCTION

MATERIA MEDICA

Materia Medica 1-2—Botany (for University Freshmen and first year College Students). Lectures and recitations 2 hours, 4 points. Professors RUSBY, HART and TAUB and instructors.

The object of this course is to prepare the student for an understanding of that part of Materia Medica which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction embraces the morphology of the higher plants, from which nearly all of our vegetable drugs are derived, the terms used in official description, systems of classification, botanical nomenclature, and the relations of the lower to the higher plants.

The lectures are illustrated by large colored charts, and each student is furnished with cards bearing mounted specimens.

For the use of the instructor in the Quiz Room, the Alumni Association has provided an elaborate series of *papier-mache* models arranged to illustrate structure and dissection.

Textbook: Rusby, *Manual of Botany*.

Materia Medica 3-4—Botany Laboratory (first year College Students). Lectures and recitations 1 hour, laboratory 4 hours, 6 points. Professors BALLARD, HART and TAUB and instructors.

Gross Botany.—Pharmacognosy, while itself not a science, may be regarded as the art of applying scientific knowledge to the examination of drugs. The theoretical and practical training of the lecture and recitation room is designed to fit the student for such botanical observations as can ordinarily be made with the naked eye.

To enable him to extend these observations by the use of the simple or dissecting and the compound microscope, in preparation for the study of Pharmacognosy in the following year, a course of laboratory instruction is provided. This portion of the work is under the direction of Professor Hart, and consists in thoroughly training the students in the use of the simple microscope, and in teaching the structure of all parts of the plant which can be studied with that instrument.

The material for these studies is collected during the summer season, and carefully selected with a view to best illustrating the points brought out in the lecture-room.

Vegetable Histology.—As ability to properly use a microscope is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts of the instrument. The uses of the various types of objectives, oculars, illuminating apparatus and mechanical accessories are explained and demonstrated. The details of sectioning, embedding, staining and mounting specimens are illustrated by demonstrations, and at least part of the work is performed by the student.

The course under the direction of Professor Ballard includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant: Each student prepares a set of specimens for use in the course and is required to follow the lecture explanations by personal observation and drawings illustrating the topics considered at each session.

Textbooks: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.

Materia Medica 5-6—Posology (for first year College Students). Lectures and recitations 1 hour, 2 points. Professor H. TAUB.

The average dosage of U. S. P. and N. F. drugs is considered with the object of teaching the student to recognize an overdose in actual prescription practice. The course covers the analysis of safe and dangerous prescriptions, approximate equivalents and conversion methods from one system into the other, and dosage of non-official but commonly prescribed synthetic remedies.

Materia Medica 7—Posology (for University Freshmen). Lectures and recitations $\frac{1}{2}$ hour, 1 point. Professor H. TAUB.

The relationship in dosage of chemically similar substances and botanically related drugs is considered during the first portion of the course; the material of the College course is given in brief in the latter half.

Materia Medica 9-10—Plant Morphology and Histology (for University Freshmen). Lectures 1 hour, laboratory $4\frac{1}{2}$ hours, $6\frac{1}{2}$ points. Professors BALLARD, HART, TAUB and instructors.

Morphology.—The laboratory course in morphology is designed to supplement the lectures in pharmaceutical botany (*MM.* 1-2). It affords practical training in simple plant dissection, both with and without the dissecting microscope, thereby illustrating the topics considered in the above lecture course and fitting students for the advanced studies of pharmacognosy and taxonomy.

Histology.—This section of the course includes a detailed study of the various cellular elements considered both as individual tissues and as integral parts of plant organs. This is followed by a systematic review of the derivation of these tissues and organs in the evolution of the higher forms of plant life from the lower. One or more representative orders of the Thallophyta, Bryophyta, Pteridophyta and Spermatophyta will be studied in detail.

Textbooks: Ballard, *Elements of Vegetable Histology*, 2nd Edit.; Ballard and Hart, *Laboratory Manual*; Rusby, *Manual of Botany*; Curtis, *Nature and Development of Plants*.

Materia Medica 53-54—Pharmacognosy Macroscopic and Microscopic (second-year College Students). Laboratory 3 hours, 3 points. Professors BALLARD, TAUB and instructors.

Macroscopic.—This part of the course comprises laboratory instruction in the classification, identification and description of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial sources; official description, definition and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. Botany (Courses *MM.* 1-2, 3-4 or equivalent) are prerequisite to a proper understanding of the work in this course.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*.

Microscopic.—The preliminary work of this part of the course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (Course *MM.* 3-4) is coördinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements *in situ* and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

Textbooks: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.

Materia Medica 55-56—Macroscopic Pharmacognosy (for University Sophomores). Laboratory 2 hours, 2 points. Professors BALLARD and TAUB.

This course includes all of the instruction offered in *Macroscopic Pharmacognosy MM. 53-54*, but in addition many non-official articles of commercial and technical importance are studied. Experience in manufacturing fields has shown that these non-official drugs and drug materials are in frequent use and familiarity with them is especially important in view of their non-inclusion in the Pharmacopœia and National Formulary.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*; Youngken, *Pharmacognosy*.

Materia Medica 57-58—Human Physiology and Hygiene (for University Sophomores and second-year College Students). Lectures and recitations 2 hours each, 4 points. Professor RUSBY and instructors.

In addition to the skill in Pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in Human Physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies, in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of Physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of Materia Medica as is properly required of the practicing pharmacist.

Textbook: Bachman and Bliss, *Essentials of Physiology*.

Materia Medica 59-60—Biology of Microorganisms (second-year College Students). Lectures and recitations 1 hour, laboratory 1 hour, 3 points. Professor HART and instructors.

This subject constitutes an introduction to the nature, behavior and effects of micro-organisms, especially of bacteria. Without entering upon the subject of practical laboratory bacteriology, as is done in the University course, it discusses the life history of bacteria, and the part that they play in fermentation and decomposition, as well as in disease, and indicates the general nature of the means employed in combatting them, and treats of biological products. The subject of sterilization, as employed in the pharmacy, and the principles of antiseptics and immunization are studied.

Materia Medica 61-62 (this course, pertaining to the Sophomore University year in 1928-29 and thereafter, is the same as *MM. 105-106*, which see).

Materia Medica 105-106—Bacteriology. (for University Juniors 1928-29). Lectures 1 hour, laboratory 2 hours, 4 points. Professor HART and instructors.

The Bacteriological Laboratory in our new building has been fully equipped, and practical work in this important field is taken up. The general principles of the science are taught, and the students cultivate, stain, and study the more important microorganisms. Laboratory methods in the bacterial examination of water, air, milk, ice, sputum and excreta are given, and methods of disinfection and sterilization are practically demonstrated.

Park and Williams, *Pathogenic Microorganisms*.

MM. 107-108—Morphology and Taxonomy of Cryptogams (for University Juniors). Lectures 1 hour, laboratory 2 hours, 4 points. Professors BALLARD and HART and instructors.

This course comprises lectures, recitations and laboratory exercises in the morphology, phylogeny and taxonomy of the Thallophyta, Bryophyta and Pteridophyta. One or more representatives of the different orders of each class and subclass will be studied in detail.

Textbooks: Curtis, *Nature and Development of Plants*; Ballard, *Laboratory Manual*.

Materia Medica 151-152—Applied Pharmacognosy (for University Seniors). Lecture $\frac{3}{4}$ hour. Laboratory 5 hours, $6\frac{1}{2}$ points. Professors BALLARD and HART.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials, using these sections for the demonstration of staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work, it is expected that the student will avail himself of the library facilities of the School and freely use the economic drug and food collections of the laboratory for reference and comparison purposes. The aim is to duplicate actual commercial laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, as far as possible, be commercial products which have been analyzed by microscopical methods.

References: Winton, *Microscopy of Vegetable Foods*; Youngken, *Pharmacognosy*.

Materia Medica 153-154—Botanical Taxonomy (for University Seniors). Laboratory course $1\frac{1}{2}$ hours, $1\frac{1}{2}$ points. Professor RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Textbook: Rusby, *Manual of Botany*.

References: Bentham and Hooker, *Genera Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

Materia Medica 155-156—Human Physiology (for University Seniors). Textbook and Conferences 1 hour, 2 points. Miss HOPPING. (Given at the College of Physicians and Surgeons.)

This course consists of a series of discussions, based on assigned reading, occupying 1 hour weekly throughout the term.

Textbook: Howell, *Physiology*.

CHEMISTRY

Chemistry 1-2—General Physics (for University Freshmen and first-year College Students). Lectures and recitations 2 hours, 4 points. Professor A. TAUB and instructors.

This course is so arranged as to emphasize those phases which have a direct bearing upon chemistry and pharmacy. After a consideration of the general properties of matter and the elements of mechanics a number of lectures are devoted to the discussion of the kinetic molecular theory and to wave motion. This is then followed by the consideration of chapters on sound, heat and magnetism.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of physical apparatus.

Textbook: Stewart, *College Physics*.

Chemistry 3-4—General Inorganic Chemistry (for University Freshmen and first-year College Students). Lectures and recitations $3\frac{1}{2}$ hours, 7 points. Professors ARNY and A. TAUB and instructors.

This course, the beginning of consecutive instruction in chemistry covering three years, is given to the first-year students of both the College and the University Classes. It opens with a careful

consideration of the fundamental principles of chemistry, special attention being given to the modern theories concerning valence, chemical equilibrium, oxidation and reduction and atomic structure.

Exercises in writing and calculating chemical equations and work on problems in chemical arithmetic are given in special quiz periods devoted exclusively to these important subjects.

On the side of descriptive chemistry, the non-metals and their compounds are discussed from their cultural, technical and pharmaceutical viewpoints.

Textbooks: Deming, *General Chemistry*, second edition; U. S. *Pharmacopæia*.

Chemistry 5-6—Analytical Chemistry. (for first-year College Students). Laboratory and recitations $3\frac{1}{2}$ hours, 4 points. Professors SCHAEFER and MACSATA and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized and separations and identifications of group members are performed. Finally, all facts acquired by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on unknown samples.

Textbook: Schaefer & Bliss, *Qualitative Chemical Analysis*.

Chemistry 7-8—Analytical Chemistry (for University Freshmen). Laboratory and recitations, $3\frac{1}{2}$ hours, 4 points. Professor KASSNER and instructors.

The student will first be made familiar with laboratory processes by means of a course of experiments in general chemistry—isolation of elements, preparation of pure compounds by means of precipitation, crystallization, etc. and examination of their properties. Simple laws and phenomena will be explained to the student in the course of this work. In this way, experience in manipulation, and a true understanding of the subject will be obtained.

This preliminary course leads to a systematic course in qualitative analysis but during the first year the reactions of the basic ions only are studied. The student is taught the separation and identification of these, and finally is required to analyze systematically solutions containing two or more basic ions.

Chemistry 51-52—General Physics (for University Sophomores and second-year College Students). Lectures and recitations. 1 hour, 2 points. Professor S. SCHAEFER and A. TAUB.

This course is a continuation of *Chemistry 1-2* (General Physics) and embraces the subjects of electricity and light. Special consideration is given to ionization, electrolysis, the electron hypothesis, vacuum tubes, the spectroscope, spectrum analysis, double refraction and the polariscope.

The lectures will be accompanied and made more interesting by many exhibitions and experiments.

Textbook: Stewart, *College Physics*.

Chemistry 54—Practical Physics (for University Sophomores). Laboratory course 4 hours, 2 points. Professor A. TAUB and instructors.

The course consists of sixteen half-day periods of four hours each, given during the second half of the year.

This work consists of experiments in fundamental physical measurements followed by special work in heat, light, sound and electricity. The laboratory is equipped not only with apparatus for routine exercises, but has the appliances necessary for work in colorimetry, spectroscopy, refraction, calorimetry and electro-chemistry.

Chemistry 55-56—Inorganic Chemistry (for University Sophomores, and second-year College Students). Lectures and recitations 3 hours, 6 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of *Chemistry 3-4* will be devoted to a consideration of the non-metallic and metallic elements and their compounds. It will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry will be discussed. In descriptive chemistry, the course will consider the remaining non-metallic elements and all of the more important metallic elements. These will be discussed from the standpoint of modern industrial chemistry.

Textbook: Sadler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition.

Chemistry 57-58—Analytical Chemistry (for University Sophomores). Laboratory course 3 hours, 3 points. Professor KASSNER and instructors.

The course in qualitative analysis begun in the first year is continued through the first half of the second year. The sequence of work is as follows:—(1) the study of the acidic-ions according to an analytical scheme of separation; (2) a systematic method of preliminary testing of unknown compounds; (3) the preparation for analysis of water-insoluble substances; and (4) the complete qualitative analyses of unknown solutions or powders containing two or more compounds.

The second half of the year's work is devoted to a course in volumetric analysis. This begins with the study of general principles and theoretical considerations, the ionization theory of indicators, pH values and the use of the analytical balance. It continues with the preparation of certain volumetric solutions and their uses in quantitative analysis by (1) neutralization (2) precipitation, (3) oxidation and reduction, and (4) iodimetry.

Chemistry 59-60—Analytical Chemistry (for second-year College Students). Laboratory course 3 hours, 3 points. Professors SCHAEFER and MACSATA and instructors.

The first half of the second-year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

During the second half-year instruction in quantitative analysis is then introduced. This training is intended to enable the pharmacist to determine the purity of medicinal chemicals and to find the percentage strength of preparations. Volumetric analysis being simple, rapid and accurate for many medicinal substances, receives special consideration.

Textbooks: *U. S. Pharmacopæia*, Schaefer and Bliss, *Qualitative Chemical Analysis*.

Chemistry 101-102—Theories of Chemistry (for University Juniors). Lectures and recitations 1 hour, 2 points. Professor SCHAEFER.

The object of this course is to bring together, to correlate and to elaborate somewhat the various theories presented to the student in the regular chemistry and physics lectures. Consideration is given to the kinetic theory, the gas laws, the laws governing change of state, the quantitative laws of chemical combination, the atomic hypothesis, the laws of valence, the periodic system, radioactivity, atomic disintegration, atomic structure, solubility, ionization, indicators, equilibrium, electrochemistry and colloids.

Special importance is placed upon the practical application of modern theories of physical chemistry to analytical processes and methods.

Textbook: Chapin, *College Chemistry*.

Chemistry 103-104—Organic Chemistry (for University Juniors). Lectures and recitations 3 hours, 6 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of *Chemistry 3-4* and *55-56*, will be devoted to a comprehensive study of the carbon compounds; special care being taken to keep the course abreast the new applications of organic chemistry in pharmacy and medicine. The preparation of the more common

organic chemicals is given careful consideration and advances under modern methods of research are presented to the class as they are reported.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up, explained in detail, and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; *U. S. Pharmacopæia*.

Chemistry 105-106—Analytical Chemistry and Urine Analysis (for University Juniors). Laboratory, 10 hours, 10 points. Professor KASSNER and instructors.

This laboratory course is given to the University Juniors in two groups, each group having 14 weeks of instruction.

The first period, comprising 100 hours, will be devoted principally to qualitative work. Students will be supplied with pure and adulterated chemicals. Tests of purity and identity will be performed upon the following: chloroform, phenol, glycerol, methenamine, compound solution of cresol, alcohol, cresol, cresote, acetanilid, chloral hydrate, paraldehyde, formaldehyde, acetphenetidin, salicylic acid, acetylsalicylic acid and such other chemicals which will give the student practice in the "General Tests" of the U. S. P. X.

During the second period of 100 hours, gravimetric and volumetric methods will be studied.

The student will prepare normal acid and alkali solutions. The former will be standardized with barium chloride and sodium carbonate, the latter with potassium bitartrate, etc. The finished solutions will then be run against each other. Following upon this, the student will prepare iodine, potassium permanganate, sodium thiosulphate, etc., volumetric solutions. After standardizing same, he will use them in volumetric assays not covered during the second year. The gasometric assays of ethyl nitrite and amyl nitrite as well as the assay of volatile oils will then be taken up and will extend into the third period of 100 hours which will be principally devoted to the proximate assays of the U.S.P. and of galenicals.

The final period of 30 hours will be devoted to the analysis of urine. In addition to the routine qualitative and quantitative tests, the student will receive instruction in the principles and use of polarimeters and chainomatic Westphal and analytical balances.

Textbook: *U. S. Pharmacopæia*.

Reference Book: Murray, *Standards and Tests for Reagent Chemicals*.

Chemistry 151-152—Inorganic Quantitative Analysis (for University Seniors). Lectures 1 hour, laboratory, 8 hours, 10 points. Professor KASSNER and instructors.

The aim of the fourth-year work in Analytical Chemistry is to carry forward the instruction in chemical analysis to such a point that the student may be able to execute the more important chemical and pharmaceutical analyses.

The object of analytical chemistry is twofold, viz.: qualitative and quantitative. During the first year the detection of the component elements of compounds of unknown composition are studied, while the work of the second and third years applies to determination of the relative proportional amounts of the components of the various compounds studied, chiefly by the aid of volumetric methods, leaving the more difficult and complex processes of gravimetric analysis to be taken up in the fourth year.

The work will consist chiefly of gravimetric determinations, but will perforce include the testing, adjusting and calibrating of delicate balances and other apparatus.

Textbook: Clowes and Coleman, *Quantitative Analysis*. Reference book, Scott, *Standard Methods of Chemical Analysis*.

Chemistry 153-154—Food Analysis and Toxicology (for University Seniors). Lectures 1 hour, laboratory, 8 hours, 10 points. Professors ARNY and KASSNER and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course of thirty hours extending through the entire year, describing the various chemical methods of food examination and explaining the principles underlying the more complex physical instruments employed by the students in their laboratory course.

Textbooks: Leach, *Food Analysis*; Autenrieth-Warren, *Detection of Poisons*; Mason, *Examination of Water*.

Reference Book: Allen, *Commercial Analysis*.

Chemistry 155-156—Biological Chemistry (for University Seniors). Lectures 1 hour, 2 points. Dr. KARSHAN. Given at College of Physicians and Surgeons.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

Chemistry 157-158—Chemical and General Bibliography (for University Seniors). Lectures and conferences, 1 hour, 2 points. Professors ARNY and KASSNER.

This course will consist of lectures on the source books of chemistry, pharmacy, botany and cognate sciences and on the periodical literature on the same subjects. At the conferences, special themes will be assigned to each student for research during spare hours.

PHARMACY

Pharmacy 1-2—Theory of Pharmacy (including Metrology and Pharmaceutical Arithmetic (for first-year College Students and University Freshmen). Lectures, 2 hours, Recitation 1 hour. 6 points. Professors WIMMER, BROWN and instructors.

This course introduces the student to the fundamentals of pharmaceutical science. It includes a series of lectures on the history of pharmacy, beginning with the Egyptian age and tracing it through the Roman, Arabian and European periods up to the present time. Special stress is laid on the historical development of American pharmacy, its organization and its Code of Ethics.

The course continues with the study of elementary pharmaceutical operations, such as evaporation, distillation, sublimation, solution, crystallization, precipitation, filtration, etc. The lectures are profusely illustrated by exhibitions of apparatus and lantern slides.

The lectures in Pharmaceutical Arithmetic begin with the subject of Metrology and cover every possible kind and type of calculation used in pharmacy.

Textbooks: *U. S. Pharmacopœia X*; Arny's *Principles of Pharmacy*; Sturmer, *Pharmaceutical Arithmetic*.

Pharmacy 3—Manufacturing Pharmacy Laboratory (for first-year College Students). Recitation 1 hour, Laboratory course, 3 hours, 16 weeks. 2½ points. Professors WIMMER, BROWN, DORFMAN and instructors.

The work of this course is elementary in nature and affords students the opportunity to apply practically their theoretical knowledge of the different systems of weights and measures, the determination of the specific gravities of various substances, the determination of alcoholic contents of liquids, the purification and granulation of salts and the manufacture of simple galenical preparations.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes and U. S. Pharmacopœia*.

Pharmacy 5—Manufacturing Pharmacy Laboratory (for University Freshmen). Recitation 1 hour, Laboratory course, 5 hours, 16 weeks. $3\frac{1}{2}$ points. Professors WIMMER, CARTER and instructors.

The work of this course is identical with that outlined under course *Pharmacy 3* for the first-year College Class, with an additional two hours of laboratory work. It is the purpose of this course not only to provide the University student with the same work that is done by the College student, but also to give him additional time for the performance of such work as pertains to retail pharmacy, inasmuch as the work of his third year will be essentially devoted to operations pertaining to the manufacture of pharmaceuticals on a large scale.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes* and *U. S. Pharmacopæia*.

Pharmacy 8—Dispensing Pharmacy Laboratory (for first-year College Students). Recitation 1 hour, Laboratory course, 3 hours. 16 weeks. $2\frac{1}{2}$ points. Professors WIMMER, BROWN, DORFMAN and instructors.

This course embraces general methods of compounding pills, troches, bacilli, emulsions, ointments, suppositories and the simpler types of prescriptions. It includes theoretical instruction and training in practical work. The habits of neatness and, above all, of accuracy acquired by the students is of direct and immediate advantage to them in rendering their services more valuable.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*, *U. S. Pharmacopæia* and *National Formulary*.

Pharmacy 10—Dispensing Pharmacy Laboratory (for University Freshmen). Recitation 1 hour, Laboratory course 5 hours, 16 weeks. $3\frac{1}{2}$ points. Professors WIMMER, BROWN, CARTER and instructors.

The work of the Dispensing Pharmacy Laboratory course for the Freshman University Class is identical with that outlined under course *Pharmacy 8* for the first-year College Class, with an additional two hours of laboratory work.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*, *U. S. Pharmacopæia* and *National Formulary*.

Pharmacy 51-52—Theoretical Pharmacy (including Pharmaceutical Latin) (for second-year College Students and University Sophomores). Lectures, 2 hours, Recitation 1 hour. 6 points. Professors WIMMER, BROWN, DORFMAN and instructors.

During the first semester of this course, one hour weekly is devoted to the general methods of manufacturing liquid, solid and semi-solid pharmaceutical preparations. The general principles involved in the manufacture of fluid extracts, tinctures, syrups, elixirs, masses, pills, etc. are studied in detail. The other hour of lecture is given over to Pharmaceutical Latin, when principles of etymology, construction of sentences and grammar, necessary to an intelligent understanding of Latin used in prescriptions, are studied.

During the second semester, the study of the solid and semi-solid preparations of the United States Pharmacopæia and National Formulary is begun and completed.

Textbooks: *U. S. Pharmacopæia X*; *National Formulary V*; Sturmer, *Pharmaceutical Latin*.

Pharmacy 53—Manufacturing Pharmacy Laboratory (for second-year College Students and University Sophomores). Recitation 1 hour, Laboratory course 3 hours, 16 weeks. $2\frac{1}{2}$ points. Professors WIMMER, BROWN, DORFMAN and instructors.

The work in the Manufacturing Pharmacy Laboratory is a continuation of the work of the first year. In general, consideration is here given to calcination, crystallization, solubility determinations, percentage solutions, the manufacture of tinctures, fluid extracts and extracts by percolation, and the preparation of various classes of galenicals, together with the manufacture of the more simple chemicals and chemical preparations.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes* and *U. S. Pharmacopæia*.

Pharmacy 56—Dispensing Pharmacy Laboratory (for second-year College Students). Recitation 1 hour, Laboratory course 3 hours, 16 weeks. 2½ points. Professors WIMMER, BROWN, DORFMAN and instructors.

The work in the Dispensing Pharmacy Laboratory is a continuation of the work of the first year. It deals more especially with prescriptions and includes the compounding and dispensing of the various types requiring technical knowledge and skill. Consideration is given to tablet triturates, mucilages, mixtures, the filling of capsules, cachets, collapsible tubes, etc. General instruction is given in the reading and interpretation of prescriptions, the recognition of the various constituents of their ingredients, together with the proper methods and manner of dispensing them.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; U. S. Pharmacopœia and National Formulary.

Pharmacy 58—Dispensing Pharmacy Laboratory (for University Sophomores). Recitation 1 hour, Laboratory course 7 hours, 16 weeks. 4½ points. Professors WIMMER, BROWN, CARTER and instructors.

The work of this course is divided into two laboratory periods, one of three hours which covers all of the work as outlined under course 56 of the second-year College Class, and one of four hours consisting of the compounding and dispensing of classes of preparations such as mixtures, draughts, lotions, solutions, emulsions, confections and jellies, pills, boli, dragees, lozenges, pastilles, lamels and orbicules, compressed tablets, powders, cachets, suppositories, pessaries and ointments, etc.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; U. S. Pharmacopœia and National Formulary.

Pharmacy 59-60—Commercial Pharmacy and Pharmaceutical Jurisprudence (for second-year College and University Classes). Lectures 1½ hours, Laboratories 1½ hours. 4½ points. Professor LASCOFF and Lecturer NEUSTAEDTER.

This course in Commercial Pharmacy is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug-store, including the choice of location, the elements of business administration and store management, insurance, problems of retail merchandising, including the value of discounts, banking, principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will be devoted largely to the principles underlying the making and interpretation of these records.

The course develops the subject rapidly devoting its time and emphasis to the foundational problems of accounting. It is built up along the lines and methods of modern accounting practice. The subject-matter includes: theories of debit and credit; classification of accounts; underlying principles of various accounting records; business papers and documents used as the basis for first entry; simple problems of the balance sheet and income statement; single entry; controlling accounts; handling sales and purchases; safeguarding the cash; consignments, and related topics. Ample practice for students is provided. The work will be related to the modern pharmacy.

This course is also designed to familiarize the student with the general provisions of State and Federal Laws governing the practice of pharmacy. Ordinances and regulations having local application only will likewise be studied.

Special attention will be given to the prohibition and anti-narcotic laws and regulations.

A knowledge of these laws and regulations is essential to the proper and safe conduct of a drug store or pharmacy.

Textbooks: *Pharmacopœia of the United States*; *The National Formulary*; *National Dispensary*; Diekman and Wimmer, *Pharmacy Notes*.

Pharmacy 109-110—Theoretical Pharmacy. (For University Juniors). Lectures 1 hour, Recitation 1 hour. 4 points. Professors WIMMER, CARTER and instructors.

This course is intended for pharmaceutical chemists. It consists of topics selected from courses *Pharmacy 51-52*. Especial emphasis is laid upon the manufacture of pharmaceuticals on a large scale.

Textbooks: *U. S. Pharmacopæia X*; *National Formulary V*.

Pharmacy 111-112—Practical Pharmacy (for University Juniors). Laboratory 5 hours. 5 points. Professors WIMMER, CARTER and instructors.

This course includes the manufacture of a number of the more difficult Pharmacopœial and National Formulary preparations, as well as of inorganic and organic medicinal remedies. The work is intended to qualify students for positions in pharmaceutical manufacturing establishments.

Textbook: Wimmer, *Manufacturing Pharmacy Notes*.

Pharmacy 113-114—Practical Dispensing Pharmacy (for University Juniors). Laboratory 2 hours. 2 points. Professors WIMMER, CARTER and instructors.

This course embraces a thorough study of the various types of incompatibilities. A large number of prescriptions are compounded which illustrate how some incompatibilities may be avoided or overcome.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Ruddiman, *Incompatibilities in Prescriptions*.

Pharmacy 151-152—Advanced Pharmacy (for University Seniors). Lecture 1½ hours. 3 points. Professor WIMMER.

This course is devoted to a detailed study of pharmaceutical, chemical and biological assay methods of vegetable and animal drugs, as well as of methods for their identification. It includes the newer methods employed, such as the standardization of tannin-containing drugs by the agglutination test, of saponin-containing drugs by the determination of their haemolytic indices, etc.

A portion of the lecture course is devoted to a study of essential oils. While especial emphasis is laid upon official oils, those of importance in the essential oil industry are included.

In a series of seminars, students are required to prepare and present before the professors and instructors in the department, papers on current topics of interest pertaining to pharmaceutical and allied sciences.

Textbooks: Fuller's *Analysis of Drugs and Medicines*; *U. S. Pharmacopæia*; *National Formulary V*; Gildemeister and Hoffman, *The Volatile Oils*.

Pharmacy 153-154—Advanced Pharmaceutical Assaying (for University Seniors). Laboratory, 7 hours. 7 points. Professors WIMMER, CARTER and instructors.

This course is intended to prepare the student for work as a drug analyst. The entire class carries out a proximate analysis of a vegetable drug. Individual problems in assay work of the most varied and difficult kind are assigned and the student is, to a certain extent, left to his own resources. The work embraces assays of galenicals, flavoring extracts, toilet preparations, cosmetics, medicinal gauzes, etc.

Textbooks: Fuller's *Analysis of Drugs and Medicines*; Nelson's *Introduction to the Analysis of Drugs and Medicines*; *Current Literature*.

ACADEMIC SUBJECTS

Coll. 1-2—English (for University Freshmen). Lectures and recitations, 3 hours, 6 points. Lecturer MCJIMSEY.

This is the Columbia College Course "A1-A2, in English Composition and Literature," required of all freshmen at that College.

Coll. 3-4—American Government (for University Freshmen). Lectures and recitations, 3 hours, 6 points. Lecturer MCJIMSEY.

This is the Columbia College Course "Government 1-2—American Government." It constitutes a general survey of the most persistent problems of American government—national, state, and local—considering problems of political organization in the first semester, and problems of administrative organization and personnel, and those related to the functions of finance, justice, the relation of government to economic life, and foreign relations in the second semester.

Coll. 51-52—German (for University Sophomores). Lectures and recitations, 5 hours, 10 points. Lecturer INGENHUETT.

This is the introductory course in German required of all freshmen at Columbia College and is equivalent to Courses *B1* and *B2*.

Coll. 101-102—Mathematics (for University Juniors). 5 points.

This course comprises the Columbia College Course "Mathematics A1, Trigonometry and A6r, Solid Geometry," and will not be given until the year 1929-30.

SUMMER LABORATORY AND QUIZ COURSES

These courses are designed to assist students who have failed at the spring examinations to prepare for those of the fall, and to provide instruction for special students in the use of the microscope, in the examination of drugs and in pharmaceutical processes.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

LABORATORY COURSES 1928

First and Second Year Classes

June 11 to June 30—Department of Chemistry.

July 6 to July 26 Department of Materia Medica.

July 27 to August 16—Department of Pharmacy.

Third Year Classes

June 11 to July 16—Department of Chemistry.

July 9 to July 31—Department of Materia Medica.

July 23 to August 20—Department of Pharmacy.

(Five days of seven hours each week)

QUIZ COURSES 1928

These courses will be held during the period from August 20 to September 8. First-year students will attend on Tuesday, Thursday and Saturday. Second- and third-year students on Monday, Wednesday and Friday. The schedule of hours for each day will be as follows:

First Year

9 a. m.-10 a. m.	Botany
10 a. m.-12 m.	Chemistry
12 m. - 1 p. m.	Physics
2 p. m.- 4 p. m.	Pharmacy
4 p. m.- 5 p. m.	Posology

Second Year

9 a. m.-10 a. m.	Materia Medica
10 a. m.-11 a. m.	Toxicology
11 a. m.- 1 p. m.	Pharmacy
2 p. m.- 4 p. m.	Chemistry, Inorganic and Organic
4 p. m.-5 p. m.	Physics

Third Year

10 a. m.-12 m.	Pharmacy
12 m. - 1 p. m.	Theories of Chemistry
2 p. m.- 4 p. m.	Organic Chemistry

LABORATORY COURSES 1929

First and Second Year Classes

June 10 to June 29—Department of Chemistry.

July 1 to July 20—Department of Materia Medica.

July 22 to August 10—Department of Pharmacy.

Third Year Class

June 10 to July 15—Department of Chemistry.

July 8 to July 30—Department of Materia Medica.

July 22 to August 19—Department of Pharmacy.

QUIZ COURSES 1929

These courses will be held during the period from August 19 to September 7. First-year students will attend on Tuesday, Thursday and Saturday. Second- and third-year students on Monday, Wednesday and Friday. The schedule of hours for each day will be as follows:

First Year

9 a. m.-10 a. m.	Botany
10 a. m.-12 m.	Chemistry
12 m. - 1 p. m.	Physics
2 p. m.- 4 p. m.	Pharmacy
4 p. m.-5 p. m.	Posology

Second Year

9 a. m.-10 a. m.	Physiology
10 a. m.-12 m.	Chemistry, Inorganic
12 m. - 1 p. m.	Physics
2 p. m.- 4 p. m.	Pharmacy

Third Year

10 a. m.-12 m.	Pharmacy
12 m. - 1 p. m.	Theories of Chemistry
2 p. m.- 4 p. m.	Organic Chemistry

EVENING COURSES

These courses of instruction, as reorganized, have been largely attended. Although they cannot be substituted for any of our regular work, leading to degrees, they have proven of great benefit to those who cannot attend instruction during the daytime and to those who desire to pursue special courses of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes. Certificates will be awarded to those who attend at least 80 per cent of all of the exercises of the course for which they register and who, in addition, receive a satisfactory grade in a final examination. Students may be admitted at any time at the discretion of the instructor in charge. A registration fee of \$6.00 is required of each student. The courses are given on three evenings of each week from Monday, October 1, 1928, to Friday, May 10, 1929. Students may pursue more than one of the courses offered during the same semester. Fees are payable in advance and are not returnable. The following courses of instruction are offered.

REGISTRATION

The Registrar's office will be open daily for Registration and on any of the evenings from 7 to 8 o'clock, during the first two weeks that courses are given.

Chemistry Phr. 1-2E—Pharmaceutical Qualitative Analysis. 1 hour classroom and 2 hours laboratory each week. Fee \$25 each semester. Professor SCHAEFER and Mr. JAYNE.

7:30-10:30 p. m., Friday.

Lecture, 7:30-8:20 p. m.

Laboratory, 8:30-10:30 p. m.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Deposit for breakage, \$10.

Chemistry, Phr. 3-4E—Pharmaceutical Qualitative Analysis. 1 hour classroom and 2 hours laboratory work each week. Fee, \$25 each semester. Professor SCHAEFER and Mr. JAYNE.

7:00-10:00 p. m., Friday.

Laboratory, 7:00-9:00 p. m.

Lecture, 9:10-10:00 p. m.

This course is a continuation of 1-2e with particular reference to the U. S. P. tests for acid-ions. (Conditional on the enrollment of ten students.)

Fee for breakage, \$10.

Chemistry, Phr. 5-6E—Pharmaceutical Volumetric Analysis. 1 hour classroom and 2 hours laboratory work. Fee \$25 each semester. Professor SCHAEFER and Mr. JAYNE.

7:00-10:30 p. m., Friday.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Deposit for breakage, \$10.

Chemistry, Phr. 7E—Examination of Urine. First semester, 1 hour lecture and 2 hours laboratory work. Fee \$25. Professor SCHAEFER and Mr. JAYNE.

7:15–10:30 p. m., Friday.

Lecture, 7:20–8:20 p. m., Friday.

Laboratory, 8:30–10:30 p. m., Friday.

It should be noted that to qualify for "Director" of a laboratory, as defined by the Board of Health of the City of New York, a degree at least the equivalent of a B.S., is required.

In this course the qualitative and quantitative chemical tests of normal and pathological urine are studied; also the preparation and standardization of the necessary reagents. (Conditional upon the enrollment of twenty students.)

Deposit for breakage, \$10.

Chemistry, Phr. 8E—Examination of Urine. Second semester 1½ hours lecture and 2 hours laboratory work. Fee \$25. Professor SCHAEFER and Mr. JAYNE.

7:30–10:00 p. m., Friday.

Lecture, 7:30–8:00 p. m., Friday.

Laboratory, 8:20–10:00 p. m., Friday.

In this course, a continuation of 7E, the gravimetric, polariscopic, colorimetric and microscopic examination of urine is studied. (Conditional upon the enrollment of twenty students.)

Deposit for breakage, \$10.

Pharmacy, Phr. 9–10E—Manufacturing Pharmacy. 1½ hours lectures and 1½ hours laboratory work each week. Fee \$35 each semester. Professor BROWN and assistants.

7:30–10:30 p. m., Tuesday.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail. (Conditional upon the enrollment of ten students.)

Pharmacy, Phr. 11–12E—Manufacture of Cosmetics and Toilet Preparations. 1 hour lecture and 2 hours laboratory work each week. Fee \$35 each semester. Professor WIMMER and assistants.

7:30–10:30 p. m., Tuesday. Main lecture room, Pharmacy.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face powders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured. (Conditional upon the enrollment of ten students.)

A summary of the lecture topics will be furnished upon request.

Pharmacy, Phr. 13–14E—Perfume Materials and Perfumery. 1 hour lecture and 2 hours laboratory work each week. Fee, \$50 each semester. Professor WIMMER and assistants.

Monday 7 p. m. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprise the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included. The second semester consists mainly of practical work.

A summary of the course will be mailed upon request.

Bacteriology, Phr. 15-16E—Principles and Practice. 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester, \$10 breakage deposit. Professor HART and assistants.

Monday—Lectures 7:00-8:00 p. m. Room 42, Pharmacy.

Monday—Laboratory 8:00-10:00 p. m.

This course includes the bacterial examination of sputum, excreta, water, air, milk and ice.

Special attention is given to the methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology and staining properties of the more common pathogenic bacteria.

Blood Analysis Phr. 17-18E—1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester, \$10 breakage deposit. Professor H. TAUB and assistants.

7:00-10:00 p. m., Tuesday.

Tuesday—Lecture 7:00-8:00 p. m.

Tuesday—Laboratory 8:00-10:00 p. m.

The entire semester is devoted to the chemical analysis of blood, the preparation of blood smears and blood count.

Phr. 20E—Parasites of the blood and intestines. 1 hour lecture and 2 hours laboratory work each week, second semester. Fee \$40 each semester, \$10 breakage deposit. Professor HART and assistants.

Tuesday—7:00-10:00 p. m.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

OFFICERS AND COMMITTEES, 1928—1929

President

VIVIAN K. COMMONS

Honorary President

ADOLPH HENNING

Vice-Presidents

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Committee on Papers and Queries

C. P. WIMMER

ADOLPH HENNING

JOHN H. HECKER

Delegates to the American Pharmaceutical Association

GEO. C. DIEKMAN

C. P. WIMMER

ADOLPH HENNING

Delegates to the New York State Pharmaceutical Association

CHARLES W. BALLARD

HUGO H. SCHAEFER

VITO CALCAGNO

Delegates to the New Jersey Pharmaceutical Association

HAROLD McADAMS

CHARLES W. HOLTON

HARRY E. BISCHOFF

Delegates to the Connecticut Pharmaceutical Association

CURT P. WIMMER

HAROLD LEVY

FRANK V. DAMTOFT

ENDOWMENTS

For ninety-nine consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and trustees. At various times financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this *Announcement*, in addition to the regular course of two years, leading to the degree of Ph.G., the College now provides a regular course of three years, leading to the degree of Ph.Ch., with an additional year of optional work, leading to the degree of B.S. in Pharmacy.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the School.

Since the actual instruction work of the school calls for the expenditure of our entire income received from students' fees, it follows that we are compelled, like other schools, to seek other sources of income for meeting unusual expenses.

Under the stress of immediate necessity, we have recently completed and occupied an extension to our former building, costing approximately \$300,000. This work was undertaken in the belief that the necessary amount would be contributed by the alumni and friends of the College. Up to the present time, only about one-half of the amount has been subscribed, and we present a special appeal for contributions to this cause.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

LIBRARY MAINTENANCE

The library facilities required by men engaged in advanced studies are necessarily much more extensive than those now provided by the College. The re-

search work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the Library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.

APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to 10,000 would admirably meet this demand.

MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or materia medica museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum proper comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three-fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the City and Federal Departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquiries could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an encyclopedic knowledge of the subject, and qualified to pursue original researches. Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

ADDITIONAL PROFESSORSHIPS

The establishment of a number of lecture courses to be served by specialists in their respective subjects is an essential requisite in the work of the final years of an advanced course. Perhaps the most important of such subjects is the history of chemistry and pharmacy. The provision of even a short series of lectures would do much to point the way to investigation in the light of former achievement.

Those desiring to contribute toward any of the purposes named, or others in which they may be interested, will upon request be supplied with a form which may be used for the purpose.

REGISTER OF GRADUATES

BACHELORS OF SCIENCE IN PHARMACY,

JUNE 1, 1927

Dimler, Marguerite Caroline
104 Ninth Street, Hoboken, N. J.
Gutchin, Samuel
66 Powell Street, Brooklyn, N. Y.
Hauck, Rudolf Otto
3511 34th Street, Jackson Heights, N. Y.
Levin, Fred 77-12th Avenue, Paterson, N. J.
Lieberman, Samuel Solomon
17 Attorney Street, New York, N. Y.

(5)

PHARMACEUTICAL CHEMISTS, JUNE 1, 1927

Adams, Joseph Edison
63 Hopkins Avenue, Jersey City, N. J.
Anzelmi, Edward
461 Rogers Avenue, Brooklyn, N. Y.
Bevacqua, Alfred
369 Third Street, Jersey City, N. J.
Brunswick, Jerome A.
41 West 96 Street, New York, N. Y.
Buccino, Raphael Joseph
307 Nichol Street, Bridgeport, Conn.
Cody, Catherine Elizabeth
94 Main Street, New Canaan, Conn.
Durfee, Olive
17 West 121 Street, New York, N. Y.
Goldberg, Samuel
213-15 Seigel Street, Brooklyn, N. Y.
Guisado, Frank Edward
29 Willow Street, Brooklyn, N. Y.
Johnson, Eric P.
211 East 33 Street, New York, N. Y.
Malorofsky, David
23 Suffolk Street, New York, N. Y.
O'Brien, Samuel Graham
14 Smith Street, Pt. Chester, N. Y.
Pokorny, Frank Joseph
52-15 Hospel Street, Elmhurst, N. Y.

(13)

PHARMACEUTICAL CHEMIST, OCTOBER 26, 1927

Kitts, Edward Angermire
Richfield Springs, N. Y.

(1)

GRADUATES IN PHARMACY, OCTOBER 4, 1927

Allen, Abraham
860 East 161st Street, New York City
Averbach, Abraham Irwin
64 East 95th Street, Brooklyn, N. Y.
Balotin, Joel Ellenville, N. Y.

Bonaccolto, Ada

322 Second Avenue, New York City

Brook, Max

251 Michigan Avenue, Mobile, Ala.

Brotman, Sam

147 Stanton Avenue, New York City

De Cicco, Anthony Charles

260 President Street, Brooklyn, N. Y.

Deitz, Martin David

47 So. Main Street, Norwalk, Conn.

Eagle, William

186 Ludlow Street, New York, N. Y.

Frankel, Ezra

140 Stanton Street, New York, N. Y.

Friedman, Morris

50 East 100th Street, New York, N. Y.

Goldman, Pincus

2847 West 33rd Street, Coney Island, N. Y.

Hertzoff, Max

41 West 113th Street, New York City

Hummel, Peter Anthony

261 French Street, New Brunswick, N. J.

Irvin, Vera

18 West 138th Street, New York City

Isaacson, Harry

2141 Homecrest Avenue, Brooklyn, N. Y.

Keegan, James John Liberty, N. Y.

Klein, Isidore

433 East 138th Street, New York, N. Y.

Kramer, Paul

1326 Washington Avenue, New York City

Lemberg, Benjamin

159 East 52nd Street, New York, N. Y.

Leventhal, Abraham

70 Osborne Street, Brooklyn, N. Y.

MacNear, Raymond

22 Fullerton Avenue, Newburgh, N. Y.

Marcus, Louis

169 East 102nd Street, New York, N. Y.

Meyerowitz, George

20 East 100th Street, New York, N. Y.

c/o Kerbes

Miller, Henry

Main Street, Fleischmanns, N. Y.

Miraglia, Albert

661 Palisade Avenue, Grantwood, N. J.

Prunier, Louis Bernard Lake Placid, N. Y.

Rosati, Albert Benedict

9125-96th Street, Woodhaven, N. Y.

Rosenstock, Pearl

48 Canal Street, Ellenville, N. Y.

Rubin, Fannie

2140 Clinton Avenue, New York, N. Y.

Silverstein, Morris

77 Keap Street, Brooklyn, N. Y.

Sirota, Benjamin

1419 Pitkin Avenue, Brooklyn, N. Y.

Smith, Lillian Russell

26 Lafayette Street, Brooklyn, N. Y.

Solow, Max

58 Cannon Street, New York, N. Y.

Steigner, George William

438 Graham Avenue, Paterson, N. J.

Tekowsky, Abraham

1725-51st Street, Brooklyn, N. Y.

Tucker, Max

416 East 52nd Street, New York, N. Y.

Wolf, David

860 Whitlack Avenue, New York City

(38)

GRADUATE IN PHARMACY, NOVEMBER 1, 1927

Schlanger, Michael

3001 Middletown Rd., New York, N. Y.

(1)

GRADUATES IN PHARMACY, MAY 16, 1927

Ackerman, Leo

915 East 15th Street, Brooklyn, N. Y.

Adler, Max Abraham

602 East 11th Street, New York, N. Y.

Allahut, Max

250 Penn Street, Brooklyn, N. Y.

Alpert, Jacob Joseph

987 Trinity Avenue, Apt. 2, New York, N. Y.

Amtman, Rudolph

1450 Clay Avenue, New York, N. Y.

Baer, Philip

1597 Sterling Place, Brooklyn, N. Y.

Bard, Aaron

1700 Crotona Park East, New York, N. Y.

Baron, Harry

1352 St. Nicholas Avenue, New York, N. Y.

Becker, Abraham

836 New Lots Avenue, Brooklyn, N. Y.

Berinsky, Abraham

985 East Tremont Avenue, New York, N. Y.

Berler, Abraham

546 New Jersey Avenue, Brooklyn, N. Y.

Berlin, Henry

338 Broadway, Saratoga Springs, N. Y.

Berman, Louis 33 Avenue A, New York, N. Y.

Bernstein, Philip

766 Ninth Avenue, New York, N. Y.

Bezahler, Charles

814 East 167th Street, New York, N. Y.

Bindersky, Morris Louis

1463 St. Marks Avenue, Brooklyn, N. Y.

Blank, Samuel

234 East Third Street, New York, N. Y.

Blatman, Leo 3510-35th Street, Astoria, L. I.

Blaunstein, Harry

786 East 165th Street, New York, N. Y.

Bloom, Morris

96 Bay 17th Street, Brooklyn, N. Y.

Bogart, Jacob

233 East 110th Street, New York, N. Y.

Bookchin, Benjamin

23 Harvard Court, Brighton Beach, N. Y.

Botfeld, Louis

32 Stanwix Street, Brooklyn, N. Y.

Bousel, Morris

3120 Hull Avenue, New York, N. Y.

Cernik, Joseph John

311 East 73rd Street, New York, N. Y.

Chalian, Alexander

1463 St. Nicholas Ave., New York, N. Y.

Cohen, Michael

602 Pennsylvania Ave., Brooklyn, N. Y.

Columbus, Leo

27 West 91 Street, New York, N. Y.

Cona, Josephine

182 So. Centre Street, Orange, N. J.

Cooper, Israel

3885 Bedford Avenue, Brooklyn, N. Y.

Cooper, Julius Sussman

72 Spring Street, Norwich, Conn.

Diamond, Rudolph

2 East 108 Street, New York, N. Y.

DiBitetto, Frank Robert

1878-63rd Street, Brooklyn, N. Y.

Dickson, Martin

262 Seigel Street, Brooklyn, N. Y.

Diliberto, Paul Joseph

30 St. Jerome Avenue, Holyoke, Mass.

Dinitz, Charles

96 McKibbin Street, Brooklyn, N. Y.

Donenhirsh, Louis

74-76 Chrystie Street, New York, N. Y.

Dreizin, Gersh Kushelev Abramov

1698 Vyse Avenue, c/o D'Arlon, New York, N. Y.

Edelman, Benjamin

1551 Walton Avenue, New York, N. Y.

Eichenbaum, Samuel

235 East 103 Street, New York, N. Y.

Elkind, Joseph Benjamin

15 Overlook Terrace, Yonkers, N. Y.

Etkins, Abraham

2161 Douglass Street, Brooklyn, N. Y.

Fiertel, Israel David

151 Suffolk Street, New York, N. Y.

Fishman, Fannie

519 Albany Avenue, Brooklyn, N. Y.

Galluzzo, Rose

1864 Wallace Avenue, New York, N. Y.

Gilbert, Charles

1571 West 11 Street, Brooklyn, N. Y.

Glassman, Louis

101 Straight Street, Paterson, N. J.

- Ginnis, Louis
1849-66th Street, Brooklyn, N. Y.
- Goldenberg, Harry
404 Georgia Avenue, Brooklyn, N. Y.
- Goldfield, Max
270 Windsor Avenue, Hartford, Conn.
- Goldstein, Meyer
292 Hinsdale Street, Brooklyn, N. Y.
- Goldwasser, Abraham
555 Bushwick Avenue, Brooklyn, N. Y.
- Gordon, William
1366 Brook Avenue, New York, N. Y.
- Gorga, Alfonso
281 Hudson Avenue, Brooklyn, N. Y.
- Gottheil, David Isidore
1851 Bathgate Avenue, New York, N. Y.
- Grey, William
1548 East 4 Street, Brooklyn, N. Y.
- Grogin, James Isidor
1031-54th Street, Brooklyn, N. Y.
- Haase, Milton
2123 Tiebout Avenue, New York, N. Y.
- Hacker, Louis
4219-15th Avenue, Brooklyn, N. Y.
- Haiken, Benjamin
822 Beck Street, New York, N. Y.
- Hammecker, Horton Martin
1500 W. Genesee Street, Syracuse, N. Y.
- Hashinsky, Edward
488 Snediker Avenue, Brooklyn, N. Y.
- Heller, Aaron
1766 Bergen Street, Brooklyn, N. Y.
- Hillinger, Morris William
2922 LaSalle Avenue, Los Angeles, Cal.
- Honiberg, Aaron David
254 Windsor Avenue, Hartford, Conn.
- Hurvitz, Mrs. Jennie
797 Crotona Park North, New York, N. Y.
- Israel, Max
120 East 110 Street, New York, N. Y.
- Jospay, Milton
17 Beach 37th Street, Edgemere, N. Y.
- Kaplan, Jonah
691 Van Sicklen Avenue, Brooklyn, N. Y.
- Kaplan, Morris
1420-43rd Street, Brooklyn, N. Y.
- Kaplan, Robert
628 Vermont Street, Brooklyn, N. Y.
- Karpf, Bernard
1509 Charlotte Street, New York, N. Y.
- Katz, Emanuel
280 Stanton Street, New York, N. Y.
- Katz, Pearl L.
738-37th Street, Milwaukee, Wis.
- Kaufman, Charles
659 Saratoga Avenue, Brooklyn, N. Y.
- Kessler, Harry
2435 Creston Avenue, New York, N. Y.
- Kessler, Selig Ezra
14 East 120 Street, New York, N. Y.
- Kirschner, Charles Israel
159 South 4 Street, Brooklyn, N. Y.
- Klein, Joseph
720 East 9 Street, New York, N. Y.
- Kolber, Samuel W.
252 Driggs Avenue, Brooklyn, N. Y.
- Koslowsky, Louis Oscar
1967-71st Street, Brooklyn, N. Y.
- Kritman, Azril
334 East 9 Street, New York, N. Y.
- Krouse, Sidney Morris
1011 Simpson Street, New York, N. Y.
- Krulis, Albert Joseph
32-14-79th Street, Jackson Heights, L. I.
- LaRocca, Michael
65½ Skillman Avenue, Brooklyn, N. Y.
- Leibson, Samuel
366 Pennsylvania Avenue, Apt. 2-c Brooklyn, N. Y.
- Leikin, Samuel
73 Conselyea Street, Brooklyn, N. Y.
- Lercher, Juda
272 East 7 Street, New York, N. Y.
- Leschinsky, Morris
13 Pitt Street, New York, N. Y.
- Levine, Benjamin
364 West 36 Street, New York, N. Y.
- Levinsky, Charles
995 Simpson Street, New York, N. Y.
- Levy, Artrelle
2329 Seventh Avenue, New York, N. Y.
- Levy, Morris Jack
22 Prospect Park, S. W. Brooklyn, N. Y.
- Lewis, Edgar
2057-78th Street, Brooklyn, N. Y.
- Lewitus, Victor
3459 DeKalb Avenue, New York, N. Y.
- Lippmann, Max
2910 Valentine Avenue, New York, N. Y.
- Liss, Julius
139 Eldridge Street, New York, N. Y.
- Lovich, Boris
1121 Morris Avenue, c/o Rubin, New York, N. Y.
- Lovich, Sidney A.
227 Hart Street, Brooklyn, N. Y.
- Lurie, Abraham
1950 Bryant Avenue, New York, N. Y.
- Maddock, Catherine Margaret
Coll. of Mt. St. Vincent, Mt. St. Vincent, N. Y.
- Malinak, Charles Henry
109 Ludlow Street, New York, N. Y.
- Mandell, Henry
191 Moore Street, Barberton, Ohio
- Markowitz, Max
222 East 124 Street, New York, N. Y.

- Mehr, Joseph
77 Division Avenue, Brooklyn, N. Y.
- Milea, Francis S.
196 President Street, Brooklyn, N. Y.
- Miller, Joseph
105 East 109 Street, New York, N. Y.
- Miller, Kenneth Scott
23 Dale Avenue, Ossining, N. Y.
- Mintzer, Marcus
223 East 4 Street, New York, N. Y.
- Monestersky, David H.
923-53 Street, Brooklyn, N. Y.
- Nadelshaft, Isaac
827 Kelly Street, New York, N. Y.
- Nadler, Charles Jack
108 Gerry Street, Brooklyn, N. Y.
- Nash, Henry Bergen
34 Fairview Avenue, Walden, N. Y.
- Nielsen, Laurence R.
235a Monitro Street, Brooklyn, N. Y.
- Ochetell, Aaron
2971 West 25 Street, Coney Island, N. Y.
- Okrent, Frank
3019 Ocean Spray Avenue, Brighton Beach,
N. Y.
- Okst, George Kings Park, N. Y.
- O'Neill, Bernard
344 Dennison Parkway, Corning, N. Y.
- Palange, Edward Arthur
193 Bleecker Street, New York, N. Y.
- Penner, Samuel
1769 Prospect Place, Brooklyn, N. Y.
- Pierri, Esther
6302 Saunders Street, Elmhurst, L. I.
- Plotkin, Louis
781-44th Street, Brooklyn, N. Y.
- Pohl, Morris
1118 Avenue K, c/o Dr. Pohl, Brooklyn,
N. Y.
- Pollock, Lawrence
1640 University Avenue, New York, N. Y.
- Reife, Leo M.
1023 Hopkinson Avenue, Brooklyn, N. Y.
- Reisman, Saul
1341 Southern Boulevard, New York,
N. Y.
- Rievman, Homer
2259-63rd Street, Brooklyn, N. Y.
- Rinzler, Philip
1243-55th Street, Brooklyn, N. Y.
- Rizzuto, Joseph
1065 DeKalb Avenue, Brooklyn, N. Y.
- Robinson, Milton
981 East 14 Street, Brooklyn, N. Y.
- Rose, Kenneth William
39 South 12 Street, Mt. Vernon, N. Y.
- Rosenberg, Benjamin
858 Beck Street, New York, N. Y.
- Rosenblatt, Morris
1354 Brook Avenue, New York, N. Y.
- Rosenblum, Ben
348 Avenue C, Bayonne, N. J.
- Rosenblum, Max
1976 Second Avenue, New York, N. Y.
- Rosenfeld, Marcus
652 Willoughby Avenue, Brooklyn, N. Y.
- Rosenthal, Irving
299 South 5th Street, Brooklyn, N. Y.
- Rothman, Israel
465 Cleveland Street, Brooklyn, N. Y.
- Rubens, Nathan
105 Water Street, Stapleton, S. I.
- Rubenstein, Sidney
505 Essex Street, Brooklyn, N. Y.
- Rubin, Israel
324 Georgia Avenue, Brooklyn, N. Y.
- Safier, Herman
1904 Mermaid Avenue, Coney Island, N. Y.
- Samlowitz, Max
89 Glenmore Avenue, Brooklyn, N. Y.
- Sanders, Herbert
7426 Seventh Avenue, Brooklyn, N. Y.
- Schaefer, Frank A.
673 Summit Avenue, Jersey City, N. J.
- Scherer, Ralph
73 Avenue C, New York, N. Y.
- Schmelzer, Henry
3803 Laurel Avenue, Seagate, N. Y.
- Schwartz, Julius
105 West 114th Street, New York, N. Y.
- Schwartz, Paul
16 Wayne Street, Middle Village, N. Y.
- Schwarz, Charles
366 Montgomery Street, Brooklyn, N. Y.
- Shamus, Leon
509 E. Raynor Avenue, Syracuse, N. Y.
- Shapiro, Irving Harold
179 Wood Avenue, Bridgeport, Conn.
- Sherman, Louis Joseph
78 Barrett Street, Brooklyn, N. Y.
- Shiffman, Samuel
39 Essex Street, New York, N. Y.
- Shulman, Jack
380 Park Avenue, Perth Amboy, N. J.
- Siegel, Samuel
307a Berriman Street, Brooklyn, N. Y.
- Sitar, Joseph John
132 Spring Street, Union City, Conn.
- Smith, George
1448-79th Street, Brooklyn, N. Y.
- Soren, Charles Harry
932 Hoe Avenue, New York, N. Y.
- Spage, Robert
55-47th Street, Corona, N. Y.
- Spiegelglass, Samuel
1099 Union Avenue, New York, N. Y.

- Stern, Morris
336 Prospect Street, Perth Amboy, N. J.
- Stern, William
159 East 94th Street, Brooklyn, N. Y.
- Stout, William Calvin
71 Cambridge Street, Valley Stream, L. I.
- Tanenbaum, Hyman A.
52 Barrett Street, Brooklyn, N. Y.
- Tartakowsky, Louis
1152 Simpson Street, New York, N. Y.
- Tornow, Abraham M.
110 Orient Avenue, Jersey City, N. J.
- Trotsky, Meyer
224 East 11th Street, New York, N. Y.
- Troub, Kopel
258 Herze Street, Brooklyn, N. Y.
- Tucker, Louis
1295 Sheridan Avenue, New York, N. Y.
- Turk, Jacob Bernard
308 New Lots Avenue, Brooklyn, N. Y.
- Volino, Anthony John
847 East 230th Street, New York, N. Y.
- Weintraub, Sol
1299 St. Johns Place, Brooklyn, N. Y.
- Westerman, Abraham
416 East 120 Street, New York, N. Y.
- Wiener, Edward Martin
1120-56th Street, Brooklyn, N. Y.
- Wiener, Meyer
1280^b Sheridan Avenue, New York, N. Y.
- Wiskin, Morris
522 East 13th Street, New York, N. Y.
- Wolfowitz, Isidore
189 Hart Street, Brooklyn, N. Y.
- Woodley, Edna Catherine
College of Mt. St. Vincent, Mt. St. Vincent, N. Y.
- Yablonski, Stanley Arthur
174 Clinton Avenue, Maspeth, N. Y.
- Yakoubian, Leon
5424-18th Avenue, Brooklyn, N. Y.
- Young, William
324 Snediker Avenue, Brooklyn, N. Y.
- Zablocki, Henry
93 South 10th Street, Brooklyn, N. Y.
- Zahn, Joseph Bernard
1466 Brook Avenue, New York, N. Y.
- Zaugg, Stanley Britain
2502 Chamberlain Avenue, Chattanooga, Tenn.
- Zutler, Elias
112 West 61st Street, New York, N. Y.
(186)

REGISTER OF STUDENTS, SESSION OF 1927-1928

SENIOR UNIVERSITY CLASS

- Cody, Catherine
94 Main Street, New Canaan, Conn.
- Durfee, Olive
17 West 121st Street, New York, N. Y.
- Goldberg, Samuel
213-15th Street, Brooklyn, N. Y.
- Kennedy, Margaret H.
Hospital of the Good Shepherd, Syracuse University, Syracuse, N. Y.
- Kitts, Edward A.
333 West 22nd Street, New York, N. Y.
(5)

JUNIOR UNIVERSITY CLASS

- Abramowitz, Abraham
60 East 3rd Street, New York, N. Y.
- Achilson, Peter L.
2380-8th Avenue, New York, N. Y.
- Adler, Alan
61 East 3rd Street, New York, N. Y.
- Baiczer, Abraham I.
1072 Union Avenue, New York, N. Y.
- Becker, Herbert C.
777 Woodward Avenue, Brooklyn, N. Y.
- Beckerman, Sidney
1697 Lexington Avenue, New York, N. Y.

- Brooks, Vernon H.
25 Maple Place, Port Chester, N. Y.
- Burch, Egbert Alfred
228 West 137th Street, New York, N. Y.
- Cohen, George
551 Boulevard, Bayonne, N. J.
- Cohen, Morris
77 Madison Street, New York, N. Y.
- Cohen, Samuel N.
2212 Surf Avenue, Coney Island, N. Y.
- Dick, Lester C.
Keyport, N. J.
- Drucker, David M.
249 Broome Street, New York, N. Y.
- Dubinsky, T.
133 Herzel Street, Brooklyn, N. Y.
- Einhorn, Charles
180 Riverdale Avenue, Brooklyn, N. Y.
- Eisenberg, Joseph
592 West Side Avenue, Jersey City, N. J.
- Epstein, George
105 Mott Avenue, Long Island City, N. Y.
- Fanelli, Dominick
547 Fourth Avenue, Brooklyn, N. Y.
- Gattuso, Charles
22 Rivington Street, New York, N. Y.
- Giordano, Herman
376 Frankfort Street, Orange, N. J.

- Giovanelli, Dominic
1263 Herkimer Street, Brooklyn, N. Y.
- Givens, Horace T. F. Freehold, N. J.
- Goldberg, Max
1368 Myrtle Avenue, Brooklyn, N. Y.
- Golden, Jonas
11a Louis Place, Brooklyn, N. Y.
- Goldman, Harry
474 Warwick Street, Brooklyn, N. Y.
- Grebel, Pincus
417 Grand Street, New York, N. Y.
- Gregorius, Ruth Lawrence, L. I., N. Y.
- Gross, Samuel
424 East 5th Street, New York City
- Gussow, Charles M.
2295 Morris Avenue, New York, N. Y.
- Herman, Milton
1464 Seabury Place, New York, N. Y.
- Hodes, Julius
2362 Ryer Avenue, New York, N. Y.
- Horin, Maynard
69 Carll Street, Jamaica, N. Y.
- Horowitz, Simon
127 East Broadway, New York, N. Y.
- Hurwitz, Morris H.
24 Ashford Street, Hartford, Conn.
- Johnson, Cornelius L.
11a Dewey Place, Brooklyn, N. Y.
- Kantrowitz, Israel
195 Madison Street, New York, N. Y.
- Kaplan, Frances Sharon Valley, Conn.
- Katz, Sidney
211 East 105th Street, New York, N. Y.
- Katzowitz, Morris
156 South 8th Street, Brooklyn, N. Y.
- Kibbe, August G.,
162 Egbert Avenue, West New Brighton,
S. I., N. Y.
- Klein, Samuel
1486 Vyse Avenue, New York, N. Y.
- La Macchia, Mildred
162 Day Street, New Haven, Conn.
- Lauria, Victor
210 De Graw Street, Brooklyn, N. Y.
- Lebensart, Manning
246 West 25th Street, New York, N. Y.
- Leibowitz, Max E.,
348 Jefferson Avenue, Brooklyn, N. Y.
- Levinson, Arthur
26 South Bridge Street, Poughkeepsie, N. Y.
- Levy, Gussie
215 Summit Avenue, Union City, N. J.
- Lippe, Abraham A.
916 Blake Avenue, Brooklyn, N. Y.
- Malinoff, Elias A.
1324 College Avenue, New York, N. Y.
- Metlitz, Henry Nanuet, N. Y.
- Michaels, Jacob
1433 Bryant Avenue, New York, N. Y.
- Miller, I. H.
337 Ridge Avenue, Lakewood, N. J.
- Montemurro, Thomas D.
531-42nd Street, Union City, N. J.
- Neuman, Harry
215 Lawrence Place, Paterson, N. J.
- Palmera, Jerome J.
274-3rd Street, Jersey City, N. J.
- Porte, Solomon
2054-63rd Street, Brooklyn, N. Y.
- Pucci, Guido
1233 Third Avenue, Woodcliff, N. J.
- Rifkin, Isidor
2026 Douglass Street, Brooklyn, N. Y.
- Rochelson, George
1416 Stebbins Avenue, New York, N. Y.
- Rocker, Philip
120 East 2nd Street, New York, N. Y.
- Saldinger, Karl
554 De Kalb Avenue, Brooklyn, N. Y.
- Schimmel, Moses L.
1315 Brighton Beach Avenue, Brooklyn,
N. Y.
- Schmilowitz, Samuel
170-23 171st Street, Jamaica, N. Y.
- Schultz, Joseph
990 Aldus Street, New York, N. Y.
- Schutzbank, Victor
R. F. D. No. 3, Lakewood, N. J.
- Schwartz, Max
1629 Lexington Avenue, New York, N. Y.
- Scowcroft, Ronald
582 Craig Avenue, Tottenville, S. I., N. Y.
- Seng, John W.
107 Carroll Place, New Brunswick, N. J.
- Shapiro, Harry
176 Riverdale Avenue, Brooklyn, N. Y.
- Simon, Harry
28 Gouverneur Street, New York, N. Y.
- Simon, Isidore
366 Hamilton Avenue, Paterson, N. J.
- Simone, Catherine Bellina
Croton-on-Hudson, N. Y.
- Sobel, Joseph
194 East Main Street, Bridgeport, Conn.
- Spielman, Samuel
981 Simpson Street, New York, N. Y.
- Stauber, Robert August
1015 Castle Hill Avenue, New York, N. Y.
- Steinberg, Abraham
620 Riverdale Avenue, Brooklyn, N. Y.
- Sternberg, Morris
904 East 95th Street, Brooklyn, N. Y.
- Thierer, Lionel L.
1968 East 2nd Street, Brooklyn, N. Y.
- Tiesler, Adolph Pleasantville, N. Y.
- Tisch, Leo
1411 Madison Avenue, New York, N. Y.

Topilow, Jacob
 155 West 29th Street, Bayonne, N. J.
 Tuchband, Louis
 Bergenfield, N. J.
 Weisman, Isadore
 37 Kingsbury Street, Waterbury, Conn.
 Weiss, Harry
 1447 Longfellow Avenue, New York, N. Y.
 Zabner, Jacob
 876 Lake View Road, Cleveland, Ohio
 Zalowitz, Morris
 419 Washington Avenue, Elizabeth, N. J.
 (86)

SOPHOMORE UNIVERSITY CLASS

Aaronson, Irving Bernard
 100 Humboldt Street, Brooklyn, N. Y.
 Alderman, George Joseph
 214 New Main Street, New York, N. Y.
 Appelbaum, Joseph
 147 Schenectady Avenue, Brooklyn, N. Y.
 Bauso, Felix
 2400 Myrtle Avenue, Ridgewood, N. Y.
 Beck, Louis
 Cresskill, N. J.
 Berry, Isadore
 76 Morgan Street, Springfield, Mass.
 Biberfeld, Abraham L.
 150-17th Street, West New York, N. Y.
 Brown, Gustave H.
 884 Riverside Drive, New York, N. Y.
 Bulda, Frank
 262 Fifth Avenue, Astoria, L. I.
 Caniparoli, Olga
 2529 Cambreleng Avenue, New York, N. Y.
 Carbonaro, John
 76 Carrol Street, Brooklyn, N. Y.
 Carnot, Edward J.
 203 East 12th Street, New York, N. Y.
 c/o Dupree Chemical Co.
 Cherr, George
 1703 Washington Avenue, New York, N. Y.
 Cohen, Irving S.
 1121 Tinton Avenue, New York, N. Y.
 Coleman, John W.
 227 Duncan Avenue, Jersey City, N. J.
 Costarella, Renato
 325 Blecker Street, New York, N. Y.
 Criscuolo, Andrew
 814 West 181st Street, New York, N. Y.
 D'Avella, B. J.,
 167 Parker Street, Newark, N. J.
 Davenport, Renald
 Sweet Valley, Pa.
 Dayharsh, Carroll
 333 West 22nd Street, New York, N. Y.
 Del Vecchio, Henry W.
 1366 73rd Street, Brooklyn, N. Y.
 Edelman, Reuben L.
 26 Cormack Court, Babylon, N. Y.
 Edelstein, Victor H.
 62 East 94th Street, New York, N. Y.

Edgars, Norman K.
 81 Hillside Avenue, Tenaflly, N. J.
 Ellena, Aldo J.
 180 Bergenline Avenue, Union City, N. J.
 Erdtrachter, Jules
 229 Fifth Street, New York City
 Fabrikant, Lawrence
 1986 Clinton Avenue, New York, N. Y.
 Falk, Herbert B.
 709 East 24th Street, Paterson, N. J.
 Fishbein, Isadore Leo
 70 Carroll Street, Paterson, N. J.
 Fisher, Jennie
 314 Bay 10th Street, Brooklyn, N. Y.
 Freedman, Ray M.
 7 West Glen Street, Glen Cove, L. I.
 Fries, Harry
 1049 East 13th Street, Brooklyn, N. Y.
 Ganeless, Percy
 99 North Main Street, Liberty, N. Y.
 Gatov, Louis
 1749 Grand Concourse, New York, N. Y.
 Gerken, Frederick
 133-08 Rockaway Boulevard, South Ozone
 Park, N. Y.
 Ginn, Barnett
 126 East 7th Street, New York, N. Y.
 Glantz, Milton
 355 Second Ave., New York, N. Y.
 Glickfield, Peter J.
 14 Cecil Avenue, Glen Cove, N. Y.
 Gorenberg, David
 690 East 158th Street, New York, N. Y.
 Grasser, George J.
 22 Florida Avenue, Arrochar, S. I.
 Greenfield, Joseph
 222 East 124th Street, New York, N. Y.
 Groves, Reginald D.
 415 Spooner Avenue, Plainfield, N. J.
 Gulker, Jacob H.
 174 Clinton Street, New York, N. Y.
 Guss, Isidore Edward
 1425 Eastern Parkway, Brooklyn, N. Y.
 Hand, Quentin R.
 2533-7th Avenue, New York, N. Y.
 Harrison, Benjamin
 197 Floyd Street, Brooklyn, N. Y.
 Hoyte, Lewis P.
 169 St. Nicholas Ave., c/o Haynes, New
 York, N. Y.
 Hubbard, E. E.,
 42 Second Avenue, Bayshore, L. I.
 Ingegno, H. P.
 521 Atlantic Avenue, Brooklyn, N. Y.
 Iozzia, Theresa C.
 86 Madison Street, Paterson, N. J.
 Ironson, Hyman
 1183 Grand Concourse, New York, N. Y.

- Isgar, William
95 Barrett Street, Brooklyn, N. Y.
- James, Edith Genevieve
588 Lenox Avenue, New York, N. Y.
- Kadish, Frank Bernard
21 South Dean Street, Englewood, N. J.
- Kaplan, Aaron
93 Granite Street, Brooklyn, N. Y.
- Kaplan, Herbert B.
185 Bergen Avenue, Jersey City, N. J.
- Kerner, Emanuel M.
1968 68th Street, Brooklyn, N. Y.
- Kolk, Martin I.
1550-50th Street, Brooklyn, N. Y.
- La Placa Francis
316 Monroe Street, Hoboken, N. J.
- Levy, Alexander
556 Ashford Street, Brooklyn, N. Y.
- Levy, Julian S.
436 Eastern Parkway, Brooklyn, N. Y.
- Lipkowitz, Irving M.
621-643 Lefferts Avenue, Brooklyn, N. Y.
- Lo Russo, Joseph F.
1883 West 13th Street, Brooklyn, N. Y.
- Lubin, Abraham A.
327 Franklin Avenue, Scranton, Pa.
- Malamant, Louis
316 South Fourth Street, Brooklyn, N. Y.
- Malkin, Max 75 Linden Street, Passaic, N. J.
- Mallon, Milton
372 Snediker Avenue, Brooklyn, N. Y.
- Margolies, Raymond Nathan
119 Lackawanna Avenue, Olyphant, Pa.
- Matuch, Wm. P.
124-41st Street, Union City, N. J.
- Megibow, Louis
543-13th Street, West New York, N. J.
- Miceli, Anthony
273 Ninth Avenue, New York, N. Y.
- Molbegat, Abner
746 East 2nd Street, Brooklyn, N. Y.
- Oaklander, Isidore
1239 Simpson Street, New York, N. Y.
- Ortega, Louis B.
546 West 147th Street, New York, N. Y.
- Patrizio, Silvio F.
108-21 Union Hall Street, Jamaica, N. Y.
- Pekarsky, Benjamin
1965 Bryant Avenue, New York, N. Y.
- Pillone, Maria
123 Lincoln Avenue, Ridgefield Pk, N. J.
- Pitchnick, Bernard
1737 Pitkin Avenue, Brooklyn, N. Y.
- Race, Clarence
2 West Main Street, Bay Shore, L. I.
- Reale, Victor A.
1569-78th Street, Brooklyn, N. Y.
- Reichman, Frances
648 Faile Street, New York, N. Y.
- Robinson, Abraham
201 Pulaski Street, Brooklyn, N. Y.
- Rosenberg, Abraham
4 Hinman Street, Middle Village, L. I.
- Rosenberg, Isidor
197-10th Street, Long Island City, N. Y.
- Rubenstein, Louis J.
85 Powell Street, Brooklyn, N. Y.
- Schlagel, Chas. Jr.
18 Oak Street, Beacon, N. Y.
- Schleider, Meyer K.
37 West 48th Street, Bayonne, N. J.
- Schmid, Frederick Box 286, Hillsdale, N. J.
- Schubert, Georgiana
444 North Avenue, Dunellen, N. J.
- Schuchman, David
210 Foster Avenue, Brooklyn, N. Y.
- Seitzman, Max
193 Howe Avenue, Passaic, N. J.
- Skasko, Stephen
300 East 23rd Street, New York, N. Y.
- Soracco, Frank
15 So. Main Street, Liberty, N. Y.
- Sorensen, Harry C.
517 East 26th Street, Brooklyn, N. Y.
- Spallucci, Michael
516 Wheatland Avenue, Bound Brook, N. J.
- Sparacio, C. J.
194-46th Street, Corona, L. I.
- Spitz, Morris S.
196 West Broadway, Paterson, N. J.
- Sporn, Arthur
431 East 83rd Street, New York, N. Y.
- Steiner, David
336 East 87th Street, New York, N. Y.
- Stopen, Theodore
406 East 70th Street, New York, N. Y.
- Sugarman, Benjamin
720 Riverside Drive, New York, N. Y.
- Taylor, Esser O.
433 So. 7th Avenue, Mount Vernon, N. Y.
- Teicher, Milton
527 West 135th Street, New York, N. Y.
- Teichholz, Bernard S.
309 Madison Street, Passaic, N. J.
- Wagman, Meyer
1203 Westchester Avenue, New York, N. Y.
- Wagner, Harry F.
8967-214th Street, Queens Village, N. Y.
- Waltz, Hugo J.
264 Morris Street, Union City, N. J.
- Wang, Sidney
459 Van Siclen Avenue, Brooklyn, N. Y.
- Weber, Jacob
502 Jamaica Avenue, Brooklyn, N. Y.
- Wilentz, Alexander
28 West Palisade Avenue, Englewood, N. J.
- Yukelson, Arthur W.
1094 Bryant Avenue, New York, N. Y.

Zunz, Edward
542-28th Street, Union City, N. Y.
Zweig, Arthur
86 West 103rd Street, New York, N. Y.
(113)

FRESHMEN UNIVERSITY CLASS

Benjamin, Irving
35 Brookside Place, New Rochelle, N. Y.
Berest, Joseph
2335 Walton Avenue, New York, N. Y.
Betzner, Clifford William
194-54 114th Road, St. Albans, N. Y.
Canepa, John Joseph
111 Anderson Avenue, Scarsdale, N. Y.
Carlat, Bernard
1914 East 18th Street, Brooklyn, N. Y.
de Domenico, Ida
287 Bleecker Street, New York, N. Y.
Eichhorn, Ervin Alfred Pearl River, N. Y.
Eisenberg, Julius
313 Steinway Avenue, Astoria, L. I.
Gaer, Bertram
641 Lafayette Avenue, Brooklyn, N. Y.
Henkin, Samuel
919 Forest Avenue, New York, N. Y.
Jacobs, Julius
1281 Eastern Parkway, Brooklyn, N. Y.
Kucker, George
83 First Street, Elizabeth, N. J.
Lifshitz, David
575 Riverdale Avenue, Brooklyn, N. Y.
Lichtenberg, Raymond
226 Adams Street, Hoboken, N. J.
Massarsky, Solomon
16 Second Street, Weehawken, N. J.
Miller, Sylvia
18 Central Avenue, Everett, Mass.
Moskowitz, Herman
135 W. Kingsbridge Road, New York, N. Y.
Muller, Alfred Carl
147-16 17th Road, Whitestone, N. Y.
Nochimow, Eliezer
489 Willoughby Avenue, Brooklyn, N. Y.
Noll, William Frederick
2502 South Fairfield Avenue, Fort Wayne, Ind.
Pagano, Alphonse F.
213 Van Brunt Street, Brooklyn, N. Y.
Peskin, Benjamin
179 East 101st Street, New York, N. Y.
Sacharow, Samuel S.
7111-20th Avenue, Brooklyn, N. Y.
Sadinsky, Hyman Benjamin
60 Maple Street, Norwich, Conn.
Seldeen, Israel
204 Broadway, Amityville, L. I.
Seligman, Morris William
317 East 27th Street, New York, N. Y.

Simcovitz, Robert
848 Belmont Avenue, Springfield, Mass.
Stefano, Eli 33 Thames Street, Norwich, Conn.
Stevens, Eli
450 Bay Ridge Avenue, Brooklyn, N. Y.
Valenti, Jessie
7612-13th Avenue, Brooklyn, N. Y.
(30)

SECOND YEAR COLLEGE CLASS

Abramoff, Adolph
221 East 66th Street, New York, N. Y.
Adler, Solomon
739 East 6th Street, New York, N. Y.
Amazon, Maxwell
320 Sea Breeze Avenue, Brooklyn, N. Y.
Amster, Herman
693 Monroe Street, Brooklyn, N. Y.
Appelbaum, Gershon
25 West 112th Street, c/o Schneidman, New York, N. Y.
Aronowitz, Louis
469 West 34th Street, New York, N. Y.
Atkin, Nathan
155 Audobon Avenue, New York, N. Y.
Avirom, Morris
358 Hart Street, Brooklyn, N. Y.
Baizer, Louis
1146 Union Avenue, New York, N. Y.
Balaban, Chaiah
333 Sheffield Avenue, Brooklyn, N. Y.
Becker, Harry
2112 Hanison Avenue, New York, N. Y.
Becker, Joseph G.
25-35 Blake Avenue, Brooklyn, N. Y.
Beeber, Joe
134 Clymer Street, Brooklyn, N. Y.
Bennett, Benjamin H.
233 South 2nd Street, Brooklyn, N. Y.
Bergman, Israel
115 St. Marks Place, New York, N. Y.
Berkowitz, Bernard
64 Wadsworth Terrace, New York, N. Y.
Berkowitz, Simon
92 Rivington Street, New York, N. Y.
Berman, Louis L.
566 Beck Street, New York, N. Y.
Bernstein, Charles Leo
216 East 6th Street, New York, N. Y.
Bernstein, Jesse L.
1233 Simpson Street, New York, N. Y.
Bershatsky, Joseph
651 Marcy Avenue, Brooklyn, N. Y.
Biller, Moses Leon
115 Columbia Street, New York, N. Y.
Bode, Emma
120 French Street, New Brunswick, N. J.
Bolker, Abraham
1926 Pacific Street, Brooklyn, N. Y.

- Botti, Nicholas Albert
 509 Greenwood Avenue, Brooklyn, N. Y.
 Boxer, Hyman
 1709 Bathgate Avenue, New York, N. Y.
 Boxer, Michael
 1997 Hughes Avenue, New York, N. Y.
 Brensilver, David I.
 637 Tinton Avenue, New York, N. Y.
 Bronstein, Leo
 201 Varet Street, Brooklyn, N. Y.
 Carneol, Herman
 324 East 46th Street, Brooklyn, N. Y.
 Chaifetz, Morris
 49 Rutgers Street, New York, N. Y.
 Chait, Reuben
 352 West 117th Street, New York, N. Y.
 Charney, Abraham
 1255 Blake Avenue, Brooklyn, N. Y.
 Chase, Irving
 890 Fox Street, New York, N. Y.
 Chasman, Solomon
 132-17th Street, Brooklyn, N. Y.
 Chasnow, Martin
 890 Fox Street, New York, N. Y.
 Cheresch, Edward
 374 South 2nd Street, Brooklyn, N. Y.
 Cipriano, Robert M.
 512 Greene Avenue, Brooklyn, N. Y.
 Cody, Mary Rose New Canaan, Conn.
 Cohen, Abraham
 647 Fox Street, New York, N. Y.
 Cohen, Abe
 216 East 56th Street, Brooklyn, N. Y.
 Cohen, Harry L.
 318 Throop Avenue, Brooklyn, N. Y.
 Cohen, Milton
 2518 Clarendon Road, Brooklyn, N. Y.
 Cohen, Philip
 1532 Longfellow Avenue, New York, N. Y.
 Cohen, Sam
 69 Hinsdale Street, Brooklyn, N. Y.
 Cohen, Sigmund
 1549-46th Street, Brooklyn, N. Y.
 Cohen, Solomon
 43 Eldridge Street, New York, N. Y.
 Daniel, Blueford Fowler Hogansville, Ga.
 David, Solomon
 117 South 4th Street, Brooklyn, N. Y.
 De Filippis, Americo Joseph
 2 B King Street, New York, N. Y.
 de Lalla, Carmelita
 704 Bleecker Street, Utica, N. Y.
 di Bella, Joseph V.
 157-17th Street, West New York, N. J.
 Dubinsky, Jack
 1566 St. Marks Avenue, Brooklyn, N. Y.
 Dubnick, Samuel
 1838 Park Place, Brooklyn, N. Y.
 Dworsky, Nathan
 62 West 124th Street, New York, N. Y.
 Eisenberg, Max
 1284 Amsterdam Avenue, New York, N. Y.
 Eisler, Abraham H.
 1738 Union Street, Brooklyn, N. Y.
 Elkowitz, Paul
 368 East 4th Street, New York, N. Y.
 Epstein, Harry
 484 Claremont Parkway, New York, N. Y.
 Errante, Frank
 389 Shepherd Avenue, Brooklyn, N. Y.
 Feuerstein, Abraham
 481 Warwick Street, Brooklyn, N. Y.
 Finkelstein, Morris
 1047 Avenue St. John, New York, N. Y.
 Florence, Paul A.
 213 Pomander Road, Mineola, L. I.
 Folcarelli, Urbino
 108 East 87th Street, New York, N. Y.
 Fox, Jerry A.
 879 Elmsere Place, New York, N. Y.
 Franzblau, Max
 2028 Gleason Avenue, Unionport, N. Y.
 Fried, Max Bernard
 39 Forest Avenue, West Englewood, N. J.
 Fried, Morris David
 164 Havemeyer Street, Brooklyn, N. Y.
 Friedman, Jacob
 89 Aldine Street, Newark, N. J.
 Friedman, Leonard
 105 Post Avenue, New York, N. Y.
 Friedman, Nathan F.
 615 West 162nd Street, New York, N. Y.
 Fuchs, Louis
 343 East 16th Street, New York, N. Y.
 Garfinkle, Arthur
 48 East 15th Street, Bayonne, N. J.
 Gargiulo, Dominick
 1869 West 10th Street, Brooklyn, N. Y.
 Geronimus, Herman J.
 674-49th Street, Brooklyn, N. Y.
 Gilbert, Jacob
 120 West 94th Street, New York, N. Y.
 Gilliar, F. J.
 53 Grace Avenue, Great Neck, N. Y.
 Gimbel, William B.
 565 Cleveland Street, Brooklyn, N. Y.
 Gioia, Michael A.
 1115 Avenue Z, Brooklyn, N. Y.
 Glance, Abraham Louis
 853 East 170th Street, New York, N. Y.
 Glazer, Louis Alfred
 1275 Grant Avenue, New York, N. Y.
 Glick, Meyer
 215 East 4th Street, New York, N. Y.
 Goldberg, Nathan
 529 Hinsdale Street, Brooklyn, N. Y.

- Goldfarb, Harold
1011 Belmont Avenue, Brooklyn, N. Y.
- Goldman, Hirsh J.
200 Vernon Street, Brooklyn, N. Y.
- Goldman, Joseph
447 Sheffield Avenue, Brooklyn, N. Y.
- Goldrad, H.
1491 Brook Avenue, New York, N. Y.
- Goldstein, Samuel
53 Liberty Avenue, Brooklyn, N. Y.
- Goozman, Max
422 East 50th Street, New York, N. Y.
- Goran, Philip
624 East 6th Street, New York, N. Y.
- Gorset, Abraham Frank
175 Middleton Street, Brooklyn, N. Y.
- Greenberg, Samuel
719 Sackman Street, Brooklyn, N. Y.
- Groopman, Harry
Woodbourne, Sullivan Co., N. Y.
- Grossman, Max
7 Bay 22nd Street, Brooklyn, N. Y.
- Gullo, Nancy
148 Hester Street, New York, N. Y.
- Halfin, Herman
1400 Clinton Avenue, New York, N. Y.
- Halpert, Isidore
1762-62nd Street, Brooklyn, N. Y.
- Heckman, Alexander
1763 West 7th Street, Brooklyn, N. Y.
- Heller, Bella
1379 Teller Avenue, New York, N. Y.
- Hirschman, Hyman
16-18 East 107th Street, New York, N. Y.
- Hochstadt, Samuel
508 Williams Avenue, Brooklyn, N. Y.
- Howard, C. Francis
39 Dewey Avenue, Huntington, L. I.
- Isaacs, Melville
53 West 114th Street, New York, N. Y.
- Isikowitz, Bernard
426 Snediker Avenue, Brooklyn, N. Y.
- Israel, Leon H.
319 Cherry Street, New York, N. Y.
- Itzkowitz, Harry
1717-60th Street, Brooklyn, N. Y.
- Itzkowitz, Isidore
602 Junius Street, Brooklyn, N. Y.
- Jacobowitz, Jacob
336 East 55th Street, Brooklyn, N. Y.
- Janiger, Phoebe
47 West 112th Street, New York, N. Y.
- Kannry, Irving
48 East 103rd Street, New York, N. Y.
- Kaplan, Julius
1382 College Avenue, New York, N. Y.
- Katz, Aaron
3802-12th Avenue, Brooklyn, N. Y.
- Kerachsky, Isador
Leonard Bridge, Conn.
- Keylin, Solomon
1361 Intervale Avenue, New York, N. Y.
- Klinger, Bernard
1382 St. John's Place, Brooklyn, N. Y.
- Klinger, Sol
689 Beck Street, New York, N. Y.
- Koch, Karl
219 East 28th Street, New York, N. Y.
- Komisaruk, William
367 East 179th Street, New York, N. Y.
- Krause, William
109 Myrtle Avenue, Port Jefferson, N. Y.
- Kreisel, Jacob
373 Monroe Street, Brooklyn, N. Y.
- Kunitz, Edward A.
1280 Walton Avenue, New York, N. Y.
- Kvares, Daniel
850 Beck Street, New York, N. Y.
- Lacovara, Vincent A.
210 East 7th Street, Brooklyn, N. Y.
- Lager, Samuel
2079 Mohegan Avenue, New York, N. Y.
- Langberg, Isidor
1675 Park Place, Brooklyn, N. Y.
- Lazarowitz, Abraham
557 Timpson Place, New York, N. Y.
- Lefrak, David
1522 Webster Avenue, New York, N. Y.
- Leitner, Yetta
1014 Eastern Parkway, Brooklyn, N. Y.
- Lehrer, Arthur M.
1369 East 29th Street, Brooklyn, N. Y.
- Lennon, Mary
Pawling, N. Y.
- Lev, Max
419 West 115th Street, Apt. 22, New York, N. Y.
- Levine, Esro
1056 Kelly Street, New York, N. Y.
- Levine, Jesse
Woodridge, N. Y.
- Levinson, Meyer Jacob
584 East 137th Street, New York, N. Y.
- Lewis, David K.
290 West End Avenue, New York, N. Y.
- Lindeman, Henry O.
109-36 132nd Street, Richmond Hill, N. Y.
- Longano, Carmine
554 Lorimer Street, Brooklyn, N. Y.
- Lortz, Edgar M.
279 West Main Street, Ilion, N. Y.
- Luntz, Stanley
1108 Clarkson Avenue, Brooklyn, N. Y.
- Lyons, Roland
Lake Placid, N. Y.
- McGraw, Harvey B.
142 West 10th Street, New York, N. Y.
- McKaba, Arthur E.
134 State Street, Brooklyn, N. Y.
- Manson, Abraham
63 Columbia Street, New York, N. Y.

- Margotta, Anna L.
169 Union Avenue, New Rochelle, N. Y.
- Martocci, A.
442 East 16th Street, New York, N. Y.
- Miceli, A. William
784 Bushwick Avenue, Brooklyn, N. Y.
- Miller, Benjamin
1347-40th Street, Brooklyn, N. Y.
- Miller, Joseph
98 Louisa Street, Brooklyn, N. Y.
- Miller, Mina
1823 Mohegan Avenue, New York, N. Y.
- Montane, Nestor Marrero
561 West 147th Street, New York, N. Y.
- Moskovitz, Jerome L.
2132 Grand Avenue, New York, N. Y.
- Mucelli, Gaetano J.
288 Essex Street, Brooklyn, N. Y.
- Musso, Frank
522-9th Street, Brooklyn, N. Y.
- Navazio, Louis
321 Convent Avenue, New York, N. Y.
- Neveloff, Aaron
46 Hoyt Street, Brooklyn, N. Y.
- Novosolsky, Henry
523 West 138th Street, New York, N. Y.
- Nussbaum, Henrietta
211 East Broadway, New York, N. Y.
- Okrent, John
3019 Ocean Spray Avenue, Brighton Beach,
Brooklyn, N. Y.
- Olenick, Jacob
1046 Rutland Road, Brooklyn, N. Y.
- Ornstrat, Leon
980 Fox Street, c/o Keeler, New York, N. Y.
- Orso, Anthony F.
R. F. D. No. 2, Hempstead, L. I.
- Oxman, William
365 Dumont Avenue, Brooklyn, N. Y.
- Padow, Meyer
1024 East 14th Street, Brooklyn, N. Y.
- Pagano, Dominick
128 East Broadway, New York, N. Y.
- Palen, Richard G.
44 Paulding Avenue, Cold Spring, N. Y.
- Picheny, Bernard
213 Clinton Street, New York, N. Y.
- Pierson, Sanford R. Liberty, N. Y.
- Polizzi, Fred E.
230 East 114th Street, New York, N. Y.
- Pollack, Jacob P.
1023 Lafayette Avenue, Brooklyn, N. Y.
- Pollack, Sam
310 East 4th Street, New York, N. Y.
- Pollock, Lawrence
1556 Hoe Avenue, c/o Salop, New York, N. Y.
- Pomerantz, Nathan Joseph
1637-44th Street, Brooklyn, N. Y.
- Ponticello, Francis A.
500 Riverside Drive, New York, N. Y.
- Pumo, Anthony
224 Suydam Street, Brooklyn, N. Y.
- Rabinowitz, Samuel
445 Rockaway Parkway, Brooklyn, N. Y.
- Rader, Dora Lillian
957 Fox Street, New York, N. Y.
- Raia, Emanuel J.
1396 Herkimer Street, Brooklyn, N. Y.
- Reifman, Isaac
1395 Bristow Street, New York, N. Y.
- Reiss, William
1061 Trinity Avenue, New York, N. Y.
- Reiter, Morris
156 Avenue C, New York, N. Y.
- Rich, Patrick
21 Evergreen Avenue, Rye, N. Y.
- Richert, Edward V.
Jericho Turnpike, New Hyde Park, N. Y.
- Rinaldi, Charles D.
1362-64th Street, Brooklyn, N. Y.
- Rosati, John
9125-96th Street, Woodhaven, N. Y.
- Rosen, Julius
28 Warren Street, Ellenville, N. Y.
- Rosenberg, Harry
123 Rockaway Parkway, Brooklyn, N. Y.
- Rosenthaler, Malvin
202-16th Street, College Point, N. Y.
- Rossi, James
370 Metropolitan Avenue, Brooklyn, N. Y.
- Rothenberg, David
537 Powell Street, Brooklyn, N. Y.
- Rothfeld, Emanuel
35 East 110th Street, New York, N. Y.
- Sabella, Vincenza J.
6023-17th Avenue, Brooklyn, N. Y.
- Sahr, Sydney
3443-62nd Street, Woodside, L. I.
- Salerno, Anthony Rocco
229 East 5th Street, New York, N. Y.
- Satz, Lola
16 East 106th Street, New York, N. Y.
- Saltzman, David
108 Moore Street, Brooklyn, N. Y.
- Samuels, George
1526 Lincoln Place, Brooklyn, N. Y.
- Sanders, Bernard
7426-7th Avenue, Brooklyn, N. Y.
- Santagada, Francis
81 City Terrace, Newburgh, N. Y.
- Sarawaisky, Isadore
20 Bergen Place, Jamaica, N. Y.
- Schames, Louis
507 Ashford Street, Brooklyn, N. Y.
- Schechner, Louis
1223-55th Street, Brooklyn, N. Y.

- Schein, Henry
244 Roebling Street, Brooklyn, N. Y.
- Schlosberg, Nathan
4 East 108th Street, New York, N. Y.
- Schmitt, Fred
15 Rochester Avenue, Brooklyn, N. Y.
- Schneider, Milton S.
1059 First Avenue, New York City
- Schrage, Joseph
1568 Macombs Road, New York, N. Y.
- Schuker, Litman
362 Grand Street, Brooklyn, N. Y.
- Schultz, George
306 East 73rd Street, New York, N. Y.
- Segal, Benjamin
8705 Bay Parkway, Brooklyn, N. Y.
- Serote, Nathan
510 West 184th Street, New York, N. Y.
- Shaffet, Robert
7620 Rockaway Boulevard, Woodhaven, N. Y.
- Shaftan, Charles S.
811 Walton Avenue, New York, N. Y.
- Shapiro, Arthur
312 East 8th Street, New York, N. Y.
- Shapiro, Daniel
1518 East 172nd Street, New York, N. Y.
- Shaw, Alex
731 Union Avenue, New York, N. Y.
- Sherman, Barney Bernard
16 Van Wyck Avenue, Jamaica, N. Y.
- Shucard, Morris
904 Stone Avenue, Brooklyn, N. Y.
- Sidelsky, Samuel
237 East 93rd Street, Brooklyn, N. Y.
- Siegal, Max
228 South Street, Brooklyn, N. Y.
- Siegel, Morris
2017 La Fontaine Avenue, New York, N. Y.
- Sileo, Mario
1525 75th Street, Brooklyn, N. Y.
- Silver, Benjamin
59 West 73rd Street, c/o Goodkind, New York, N. Y.
- Silverman, Jacob Ronald
136 West 170th Street, New York, N. Y.
- Singer, Nathan
988 Simpson Street, New York, N. Y.
- Sirulnick, Ralph
2010 Ocean Avenue, Brooklyn, N. Y.
- Slavin, Isadore
141 Second Avenue, New York, N. Y.
- Slutsky, Ben
65 Norfolk Street, New York, N. Y.
- Smith, Edward Joseph
1641 East 9th Street, Brooklyn, N. Y.
- Smith, Irving Hugh
9 Morningside Avenue, Upper Montclair, N. J.
- Smolowitz, Bernard
29 West 119th Street, New York, N. Y.
- Sorin, Mac
2166 Eighth Avenue, New York, N. Y.
- Sorkenn, Ralph
30 West 75th Street, New York, N. Y.
- Speller, C. W.
22 Wyandotte Avenue, Highland Falls, N. Y.
- Steinberg, Eva
2867 West 27th Street, Brooklyn, N. Y.
- Stillerman, Harry L.
542 Sheepshead Bay Road, Brooklyn, N. Y.
- Strassberg, Sidney
544 St. Paul's Place, New York, N. Y.
- Sussman, Henry
1956 Crotona Parkway, New York, N. Y.
- Tabachnick, Max
178 Hooper Street, Brooklyn, N. Y.
- Talenbloom, Julius
220 Campbell Avenue, Revere, Mass.
- Tandlich, Henry
3124 Mermaid Avenue, Coney Island, N. Y.
- Tansky, David
810 Hunts Point Avenue, New York, N. Y.
- Tapola, Lucille
65 Wadsworth Terrace, New York, N. Y.
- Tekel, Benjamin
617 East 11th Street, New York, N. Y.
- Thimble, Rudolph
40-19 24th Street, Long Island City, N. Y.
- Tobis, Abraham
832 Whitlock Avenue, New York, N. Y.
- Tolkoff, Paul
8-10 East 107th Street, New York, N. Y.
- Tracy, Thomas
33 Maple Place, Port Chester, N. Y.
- Tuman, Robert
5323 Church Avenue, Brooklyn, N. Y.
- Turetsky, David
118-17 Liberty Avenue, Richmond Hill, N. Y.
- Valentino, Louis
74 President Street, Brooklyn, N. Y.
- Veprovsky, Lawrence L.
1430 First Avenue, New York, N. Y.
- Verdrager, David
541 Flushing Avenue, Brooklyn, N. Y.
- Vitale, Leonida P.
1637-68th Street, Brooklyn, N. Y.
- Vix, George
537 East 144th Street, New York, N. Y.
- Vogel, Joseph
132-03 Cronston Avenue, Belle Harbor, L. I.
- Waldinger, David
318 Rochester Avenue, Brooklyn, N. Y.
- Waterbury, Whitford N.
1665 Grand Concourse, New York, N. Y.
- Weinberg, Rubin
224 South 3rd Street, Brooklyn, N. Y.

Weiner, Irving J.
152 West 176th Street, New York, N. Y.
Weinstein, Isadore
860 Southern Boulevard, New York, N. Y.
Weinstein, Milton
236 Clinton Street, New York, N. Y.
Weiss, Alfred S.
641 Vanderbilt Avenue, Brooklyn, N. Y.
Wieder, Irving P.
3625 Mermaid Avenue, Brooklyn, N. Y.
Wolin, Louis
9600 Roosevelt Avenue, Corona, L. I.
Yanowitz, Irving
1515-45th Street, Brooklyn, N. Y.
Yosepowitz, Joseph
1336 Brook Avenue, New York, N. Y.
Yudcovich, Jack
700 East 161st Street, New York, N. Y.
Zelenko, Alexander D.
389 Beech Street, Teaneck, N. J.
Zeltzer, Irving
553 Williams Avenue, Brooklyn, N. Y.
Zirin, Benjamin
75 East 109th Street, New York, N. Y.
(270)

FIRST YEAR COLLEGE CLASS

Abrams, Michael Irving
108-21st Street, West New York, N. J.
Ackerman, Ruth
749 Kelly Street, New York, N. Y.
Allegra, Frank
65 Webster Avenue, Long Island City, N. Y.
Alperstein, Hyman
216 East 10th Street, New York, N. Y.
Anderson, Arthur Gustave
4 Travers Avenue, Mamaroneck, N. Y.
Asbell, Joseph
1420 Nostrand Avenue, Brooklyn, N. Y.
Bacchiani, Torquato
343 East 57th Street, New York, N. Y.
Bailey, William Lounsbury
80 W. Newell Avenue, Rutherford, N. J.
Bambara, Aurelius John
1271-42nd Street, Brooklyn, N. Y.
Bardfeld, Gustave
9720 Jamaica Avenue, Woodhaven, N. Y.
Barth, Sam
502 West 159th Street, New York, N. Y.
Bartha, John Anthony, Jr.
165 Hamilton Street, New Brunswick, N. J.
Bauer, Max
400-8th Street, West New York, N. J.
Bauer, Paul Edgar
Westbury, L. I.
Berkowitz, Bernard
109 Eldridge Street, New York, N. Y.
Beyer, Isadore
Spring Glen, N. Y.
Bittar, Albert
5502-6th Avenue, Brooklyn, N. Y.

Blacker, Morris
Box 96, High Falls, N. Y.
Blatt, Jacob
3561 De Kalb Avenue, New York, N. Y.
Blois, Bernard E.
34 King Street, New York, N. Y.
Blumberg, Lester
79 West 25th Street, Bayonne, N. J.
Boxer, Meyer
131 Rockaway Parkway, Brooklyn, N. Y.
Braswell, James Le Roy
89 Seventh Avenue, Brooklyn, N. Y.
Britton, John T.
479 Broadway, Long Branch, N. J.
Bronzo, Ralph
2070 West 9th Street, Brooklyn, N. Y.
Bussle, Harry
1301 Fulton Avenue, New York, N. Y.
Calabrese, Savino Daniel
826 Second Avenue, New York, N. Y.
Capobianco, Domenick Thomas
506 Brook Avenue, New York, N. Y.
Carroll, Harry
468 Wyona Street, Brooklyn, N. Y.
Cassara, Anthony
1121-40th Street, Brooklyn, N. Y.
Charnes, Randolph
495 East 174th Street, New York, N. Y.
Chernoff, Max Hyman
607 Hopkinson Avenue, Brooklyn, N. Y.
Cimino, John Anthony
485 Henry Street, Brooklyn, N. Y.
Cipnic, Herman
111-11 Liberty Avenue, Richmond Hill, N. Y.
Cohen, Alexander
114 Van Sicklen Avenue, Brooklyn, N. Y.
Cohen, Bernard M.
2001 Douglass Street, Brooklyn, N. Y.
Cohen, David
100 Wegman Parkway, Jersey City, N. J.
Cohen, Harry
561 West 163rd Street, New York, N. Y.
Cohen, Henry
325 Wallabout Street, Brooklyn, N. Y.
Cohen, Isaac
591 East 141st Street, New York, N. Y.
Cohen, Meyer
537 West 141st Street, New York, N. Y.
Cohen, Sidney
450 East 184th Street, New York, N. Y.
Cohen, William
726 Rockaway Avenue, Brooklyn, N. Y.
Coppola, Angelo
34-21 91st Street, Jackson Heights, N. Y.
Costabile, Hugo
765 East 226th Street, New York, N. Y.
Crafa, Mary
9412 Van Wyck Avenue, Richmond Hill,
N. Y.

- Davis, Benjamin Richard
1771-57th Street, Brooklyn, N. Y.
- Decter, Jacob
11 McDonough Street, Brooklyn, N. Y.
- Denker, Benjamin
496 East 174th Street, New York, N. Y.
- Diamondstein, Joseph
1506 Walton Avenue, New York, N. Y.
- Dicker, Morris
228 Sixth Street, New York, N. Y.
- Diecidue, Ignatius
684 Flushing Avenue, Brooklyn, N. Y.
- Dier, Philip
1028 Simpson Street, New York, N. Y.
- Dinin, Jack
139 Division Street, New York, N. Y.
- Dogan, Max
617 Knickerbocker Avenue, Brooklyn, N. Y.
- d'Orbessan, Fernand Matthew, Jr.
1259-103rd Street, Ozone Park, L. I.
- Duchovne, Joseph
36 West 112th Street, New York, N. Y.
- Dwoskin, Barney William
2930 West 36th Street, Coney Island, N. Y.
- Eisenberg, Dorothy L.
1252a Lincoln Place, Brooklyn, N. Y.
- Ellenson, Barnett
868 East 172nd Street, New York, N. Y.
- Epstein, Samuel Irving
315 East 102nd Street, New York, N. Y.
- Failla, Silvio Joseph
740 Main Street, North Bergen, N. J.
- Falk, Benjamin
312 Madison Street, New York, N. Y.
- Fazio, Ignatius
3629 White Plains Avenue, New York, N. Y.
- Feldman, Morris
120 Bristol Street, Brooklyn, N. Y.
- Fermaglich, Joseph Louis
605 Metropolitan Avenue, Brooklyn, N. Y.
- Fialkow, Ben
1790 Sterling Place, Brooklyn, N. Y.
- Firemark, Samuel
107-57 Union Hall Street, Jamaica, N. Y.
- Flaherty, Sister M. Oswald
Marywood College, Scranton, Pa.
- Flaumenbaum, Irving
1454 East 14th Street, Brooklyn, N. Y.
- Fleissig, Arthur
378 East 10th Street, New York, N. Y.
- Flexer, Isidore
253 West 111th Street, New York, N. Y.
- Form, Milton
1828 Myrtle Avenue, Brooklyn, N. Y.
- Frankel, Isidore Isaac
156 Second Avenue, New York, N. Y.
- Frankfort, Morris
1566 Macombs Road, New York, N. Y.
- Fried, Emanuel
1975 Mapes Avenue, New York, N. Y.
- Friedberg, Irving
522 Christopher Avenue, Brooklyn, N. Y.
- Gellar, Henry
238 Barrett Street, Brooklyn, N. Y.
- Getzlek, George
1125 Howard Avenue, Utica, N. Y.
- Gitlin, Benjamin
495 East 173rd Street, New York, N. Y.
- Glick, Percy
639 Banner Avenue, Brooklyn, N. Y.
- Gluck, Morton
1560 Amsterdam Avenue, New York, N. Y.
- Godlin, Abraham
Woodbourne, N. Y.
- Gold, Morris
1096 West Farms Road, New York, N. Y.
- Goldberg, Harry
311 West 14th Street, New York, N. Y.
- Goldfarb, Samuel
439 West 40th Street, New York, N. Y.
- Gordon, Martin
608 Schenck Avenue, Brooklyn, N. Y.
- Govendy, Anna Belle
835 South Townsend Street, Syracuse, N. Y.
- Gralewski, Walter Joseph
757-41st Street, Brooklyn, N. Y.
- Greenstein, Edward
593 Miller Avenue, Brooklyn, N. Y.
- Gregorczyk, Leon Andrew
271 Jackson Avenue, Jersey City, N. J.
- Gressey, Henry
31-14 36th Street, Astoria, N. Y.
- Guagliardo, Vincent Francis
28 Harrison Avenue, Monson, Mass.
- Haimowitz, Benjamin
564 Ashford Street, Brooklyn, N. Y.
- Hamburg, David
1425 Vyse Avenue, New York, N. Y.
- Heller, Harry
598 Snediker Avenue, Brooklyn, N. Y.
- Herwolsky, Philip
1571 St. Marks Avenue, Brooklyn, N. Y.
- Hickman, Louis Harry
145 West 98th Street, New York, N. Y.
- Hill, Paul Donald
210 West 138th Street, New York, N. Y.
- Hirschmann, Jonas
52 Tonnele Avenue, Jersey City, N. J.
- Holzman, Jack
39-26 62nd Street, Woodside, N. Y.
- Hosking, Carl Yanzea
Washingtonville, N. Y.
- Huber, Henry George
213 Euclid Avenue, Ridgefield Park, N. J.
- Huger, Charles
1421 Crotona Avenue, New York, N. Y.
- Hurwitz, Myer
1402 South McBride Street, Syracuse, N. Y.

- Hutter, Isidore
1291 Eastern Parkway, Brooklyn, N. Y.
- Israel, Samuel
470 Snediker Avenue, Brooklyn, N. Y.
- Jablin, Michael Marvin
1310 Union Street, Brooklyn, N. Y.
- Jackson, Joseph
948 Tiffany Street, New York, N. Y.
- Jacobi, Marvin Stanley
210 East 3rd Street, New York, N. Y.
- Jacobs, Frank
303 Broome Street, New York, N. Y.
- Jurow, Louis
Mongaup Valley, Sullivan Co., N. Y.
- Kaufman, George Sam
569 Saratoga Avenue, Brooklyn, N. Y.
- Kempf, Charles Edwin
342 Etna Street, Brooklyn, N. Y.
- Kessler, Nathan
227 Ashburton Avenue, Yonkers, N. Y.
- Kinishinsky, Joseph
2035-60th Street, Brooklyn, N. Y.
- Klorman, Joseph
152 East 96th Street, Brooklyn, N. Y.
- Kobelivker, Joseph
734 Saratoga Avenue, Brooklyn, N. Y.
- Koretsky, Leon
699 Willoughby Avenue, Brooklyn, N. Y.
- Koslowsky, David
1967-71st Street, Brooklyn, N. Y.
- Kosowsky, Milton Stanley
52 Summer Street, New London, Conn.
- Kossove, Albert
972-45th Street, Brooklyn, N. Y.
- Kressel, Marcus
171 Essex Street, New York, N. Y.
- Kyzer, Anton Louis
30-70 45th Street, Astoria, N. Y.
- Lacovara, George
754 East 215th Street, New York, N. Y.
- Lauria, Anthony
784 West Side Avenue, Jersey City, N. J.
- Lerman, Nathaniel
1187 Eastern Parkway, Brooklyn, N. Y.
- Lerner, Isadore
50 East Third Street, New York, N. Y.
- Levin, Joseph
12 Perkins Avenue, Oceanside, L. I.
- Levine, Theodore
371 Crown Street, Brooklyn, N. Y.
- Liberman, Joseph Rudolph
1061 Intervale Avenue, New York, N. Y.
- Liebowitz, Harry
1348 Clinton Avenue, New York, N. Y.
- Lissman, Harold
2073 Davidson Avenue, New York, N. Y.
- Loscalzo, Joseph
125-46th Street, Corona, N. Y.
- Lowentman, Julius
115 East 114th Street, New York, N. Y.
- McDavid, Sydney
801 Freeman Street, New York, N. Y.
- McQueen, Wells Duncan, Jr.
107 Linden Avenue, Middletown, N. Y.
- Maffia, Joseph J.
1156 Second Avenue, New York, N. Y.
- Maggio, John Salvatore
107 Ridgewood Avenue, Brooklyn, N. Y.
- Maisel, Milton
247 Wadsworth Avenue, New York, N. Y.
- Mandel, Charles
341 Wythe Avenue, Brooklyn, N. Y.
- Mandelblit, Morris Mordechai
788 East 175th Street, New York, N. Y.
- Manfre, Stephen
204 Baltic Street, Brooklyn, N. Y.
- Mariani, Faustina
3350 White Plains Avenue, New York, N. Y.
- Marion, Bernard
604 West 191st Street, New York, N. Y.
- Marra, Joseph R.
11 Ohio Avenue, Port Washington, N. Y.
- Marshall, Lillian
229 East 119th Street, New York, N. Y.
- Matragrano, Anthony John
Bedford Hills, N. Y.
- Matthias, Eulalie
308 West 129th Street, New York, N. Y.
- Mazie, Jack
224 Avenue A, New York, N. Y.
- Mazur, Samuel
33 Montgomery Street, New York, N. Y.
- Megna, John
1080 Sutter Avenue, Brooklyn, N. Y.
- Meiselman, Harold Engel
9 Northern Avenue, New York, N. Y.
- Miller, Bernard
1450 Bryant Avenue, New York, N. Y.
- Miller, Edson Wilbur
Highland Mills, N. Y.
- Miller, Samuel
341 Riverdale Avenue, Brooklyn, N. Y.
- Millner, Samuel
73 Grafton Street, Brooklyn, N. Y.
- Mininberg, Harry
909 Kelly Street, New York, N. Y.
- Mordente, Constance
423 East 122nd Street, New York, N. Y.
- Mordente, Josephine
423 East 122nd Street, New York, N. Y.
- Moroch, David
2116-66th Street, Brooklyn, N. Y.
- Murdock, Peter C.
25 Amsterdam Place, Mount Vernon, N. Y.
- Mussawir, Alfred
436-45th Street, Brooklyn, N. Y.
- Naftal, Benjamin Harold
329 East 94th Street, New York, N. Y.

- Napoliello, Joseph Francis
21 Grace Street, Jersey City, N. J.
- Nemiroff, Max Milton
1220-45th Street, New York, N. Y.
- Nestampower, Morris
485 East 95th Street, Brooklyn, N. Y.
- Nieparent, Morris
63 East 118th Street, New York, N. Y.
- Opell, Alfred Nathaniel
750 Howard Avenue, Brooklyn, N. Y.
- Orkand, Sidney
2164 Prospect Avenue, c/o Orkin, New York, N. Y.
- Palen, Robert O'Neill
Monroe, N. Y.
- Palen, Jacob
102-44 Jamaica Avenue, Richmond Hill, N. Y.
- Papalinsky, Morris
1001 Lincoln Place, Brooklyn, N. Y.
- Parker, Sidney Elbert
179 Wilkins Street, Rochester, N. Y.
- Pavony, Nathan
693 Saratoga Avenue, Brooklyn, N. Y.
- Pekarsky, Morris
219 East 10th Street, New York, N. Y.
- Peterson, Leon Adam
51 West 111th Street, New York, N. Y.
- Pinck, Nathan
84 Henry Street, Passaic, N. J.
- Platt, Max
953 East 174th Street, New York, N. Y.
- Posner, Albert H.
923 Fox Street, New York, N. Y.
- Pospisil, Rudolph Joseph
30-70 32nd Street, Astoria, L. I.
- Rabinowitz, Kalman
63 Jefferson Street, New York, N. Y.
- Ramo, Louis
34 St. Marks Avenue, Rockville Centre, N. Y.
- Reich, Bernard
163 Smith Street, Brooklyn, N. Y.
- Reife, William
1023 Hopkinson Avenue, Brooklyn, N. Y.
- Reisch, George Frederick
60 East Palisade Boulevard, Palisade Park, N. J.
- Rende, Alfonso Louis
723 East 229th Street, New York, N. Y.
- Robas, Mildred Marie
90-54 178th Street, Jamaica, N. Y.
- Robey, Esther
1002 East 167th Street, New York, N. Y.
- Ronick, Charles
1244 Wheeler Avenue, New York, N. Y.
- Ronsheim, Julian
808 West End Avenue, New York, N. Y.
- Rosenberg, David
62 Columbia Street, New York, N. Y.
- Rosenberg, Hyman
387 Williams Avenue, Brooklyn, N. Y.
- Rosenberg, Irving
87 Siegel Street, Brooklyn, N. Y.
- Rosenberg, Isaac
826 East 167th Street, New York, N. Y.
- Rosenberg, Samuel
1175 East 9th Street, Brooklyn, N. Y.
- Rosenman, Chaim
1279 Sheridan Avenue, Apt. 4-B, New York, N. Y.
- Rosenthal, William
120 West 112th Street, New York, N. Y.
- Rosmosky, Abe
27 East 110th Street, New York, N. Y.
- Rothbaum, Milton
1424 Bryant Avenue, New York, N. Y.
- Rothberg, Philip
1566 St. Marks Avenue, Brooklyn, N. Y.
- Rothman, Abraham
1420 Stebbins Avenue, New York, N. Y.
- Rovner, Louis
310 So. Third Street, Brooklyn, N. Y.
- Rubenstein, Arthur
505 Essex Street, Brooklyn, N. Y.
- Rubin, Benjamin
493 Second Avenue, New York, N. Y.
- Rubin, Harold
870 Riverside Drive, New York, N. Y.
- Saperstein, Milton
1519 Plimpton Avenue, New York, N. Y.
- Sarkisian, Yeran Sarounie
5 West 125th Street, New York, N. Y.
- Schechter, Hyman
418 East 5th Street, New York, N. Y.
- Schechter, Morris
348 East 9th Street, New York, N. Y.
- Scheer, John Jonas
132 East 119th Street, New York, N. Y.
- Scher, Wilfred
1157 Manor Avenue, New York, N. Y.
- Scherer, Paul
126 East Second Street, New York, N. Y.
- Schmukler, Michael
4 Blake Avenue, Brooklyn, N. Y.
- Schneck, Max Raymond
665 Allerton Avenue, New York, N. Y.
- Scholefield, Charles Wesley
23 Ralph Street, Beacon, N. Y.
- Schulman, Solomon
823 Trinity Avenue, New York, N. Y.
- Schur, Sidney
2012 East 13th Street, Brooklyn, N. Y.
- Schwartz, Hyman
819 East 168th Street, New York, N. Y.
- Schwartz, Jacob
1567 First Avenue, New York, N. Y.
- Schwartz, Joseph George
250 East 30th Street, New York, N. Y.
- Scouras, Constantine
29 West 65th Street, New York, N. Y.

- Senft, Hyman
 108 Grafton Street, Brooklyn, N. Y.
 Seppi, Dominic
 319 Third Street, Cliffs Park, N. Y.
 Sherman, Harold
 1448 Fifth Avenue, New York, N. Y.
 Shub, Abraham
 575 Riverdale Avenue, Brooklyn, N. Y.
 Shucard, Jack
 922 Stone Avenue, Brooklyn, N. Y.
 Siderman, Morris
 2784 East 7th Street, Brooklyn, N. Y.
 Siegel, Joseph
 Ferndale, N. Y.
 Siegel, Solomon
 1524 Charlotte Street, c/o Sheiner, New
 York, N. Y.
 Silverman, Max
 531 Bradford Street, Brooklyn, N. Y.
 Silverstein, George Jeremiah
 12 Pinehurst Avenue, New York, N. Y.
 Singer, Max
 296 Delancey Street, New York, N. Y.
 Slobin, Jacob
 807 28th Street, Union City, N. J.
 Slutzkin, Frederick Israel
 842 Hewitt Place, New York, N. Y.
 Smith, Van Roy
 101 West 130th Street, New York, N. Y.
 Spanier, Irving
 117 Clymer Street, Brooklyn, N. Y.
 Spetalnick, Max
 1245 Ward Avenue, New York, N. Y.
 Spirko, Stephen Michael
 107 Erie Street, Jessup, Pa.
 Steinberg, Isidore
 4702-12th Avenue, Brooklyn, N. Y.
 Steiner, Elias
 218 East 7th Street, New York, N. Y.
 Steir, Moe
 60 Sheriff Street, New York, N. Y.
 Stitzel, Louis
 308 East 6th Street, New York, N. Y.
 Stolper, Morris
 19 East 108th Street, New York, N. Y.
 Strauss, Morris
 318 East 5th Street, New York, N. Y.
 Thompson, Joseph Henry
 100 Hester Street, New York, N. Y.
 Timen, Clare F.
 347 Hillside Avenue, Jamaica, N. Y.
 Tishler, George
 308 East 8th Street, New York, N. Y.
 Tobias, Meyer
 104 Grand Street, Hoboken, N. J.
 Trop, Rachel
 892½ Forest Avenue, New York, N. Y.
 Troub, Louis
 1728 Sterling Place, Brooklyn, N. Y.
 Tunis, Philip
 138 Norfolk Street, New York, N. Y.
 Twersky, Mary
 323 South Main Street, Torrington, Conn.
 Valerio, Leo Joseph
 345 West 21st Street, New York, N. Y.
 Vasiliades, Angelo
 257 Second Street, Lakewood, N. J.
 Wassing, David Leon
 276 Washington Street, Hartford, Conn.
 Webman, Larry
 402 South Second Street, Brooklyn, N. Y.
 Weidenbaum, Ralph
 248 East Houston Street, New York, N. Y.
 Weinberg, Victor
 219 Henry Street, New York, N. Y.
 Weinstein, Louis
 1808 75th Street, Brooklyn, N. Y.
 Weintraub, Hyman
 57 Suffolk Street, New York, N. Y.
 Weiss, Louis
 93 Nightingale Street, Dorchester, Mass.
 Wexlin, Hyman
 1219 Rosedale Avenue, New York, N. Y.
 Williams, Clifford Albert
 26 West 136th Street, New York, N. Y.
 Winokur, Aaron
 2223 Surf Avenue, Coney Island, Brooklyn,
 N. Y.
 Wisztreich, Edward Odon
 315 East 79th Street, New York, N. Y.
 Wollenberg, Hamilton
 136 East 96th Street, New York, N. Y.
 Youran, Morris
 51 West 111th Street, New York, N. Y.
 Zanca, Anthony
 1320 Brook Avenue, New York, N. Y.
 Zeichner, Lewis Abraham
 278 East 7th Street, New York, N. Y.
 Zeitz, Samuel
 662 Linden Boulevard, Brooklyn, N. Y.
 Zincover, Julius
 1056-50th Street, Brooklyn, N. Y.
 Zunin, Louis
 980 Sutter Avenue, Brooklyn, N. Y.
 Zweifach, Jacob
 162 Lee Avenue, Brooklyn, N. Y.
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SCHEME OF ATTENDANCE

COLLEGE CLASS FIRST YEAR

Tuesday

	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6
9-10	Botany Lect.	Botany Lect.	Botany Lect.	Botany Lect.	Botany Lect.	Botany Lect.
10-11	Histology Lect.	Histology Lect.	Histology Lect.	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
11-12	Botany Lab.	Botany Lab.	Botany Lab.	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
12-1	Botany Lab.	Botany Lab.	Botany Lab.	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
2-3	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
3-4	Posology	Posology	Posology	Botany Recit.	Pharmacy Recit.	Pharmacy Recit.
4-5	Botany Lab.	Botany Lab.	Botany Lab.	Physics Recit.	Chemistry Recit.	Physics Recit.
5-6	Botany Lab.	Botany Lab.	Botany Lab.	Pharmacy Recit.	Physics Recit.	Chemistry Recit.

Thursday

9-10	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
10-11	Chemical Lab.	Chemical Lab.	Chemical Lab.	Histology Lect.	Histology Lect.	Histology Lect.
11-12	Chemical Lab.	Chemical Lab.	Chemical Lab.	Botany Lab.	Botany Lab.	Botany Lab.
12-1	Chemical Lab.	Chemical Lab.	Chemical Lab.	Botany Lab.	Botany Lab.	Botany Lab.
2-3	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
3-4	Botany Recit.	Botany Recit.	Pharmacy Recit.	Posology	Posology	Posology
4-5	Pharmacy Recit.*	Pharmacy Recit.	Pharmacy Recit.	Botany Lab.	Botany Lab.	Botany Lab.
5-6	Pharmacy Recit.*	Physics Recit.	Physics Recit.	Botany Lab.	Botany Lab.	Botany Lab.

Saturday

9-10	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
10-11	Pharmacy Lab.*	Pharmacy Lab.	Pharmacy Lab.	Chemical Lab.	Chemical Lab.	Chemical Lab.
11-12	Pharmacy Lab.*	Pharmacy Lab.	Pharmacy Lab.	Chemical Lab.	Chemical Lab.	Chemical Lab.
12-1	Pharmacy Lab.*	Pharmacy Lab.	Pharmacy Lab.	Chemical Lab.	Chemical Lab.	Chemical Lab.
2-3	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.
3-4	Physics Recit.	Chemistry Recit.	Chemistry Recit.	Pharmacy Recit.	Botany Recit.	Botany Recit.
4-5	Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.
5-6	Chemistry Recit.	Pharmacy Recit.	Botany Recit.	Chemistry Recit.	Pharmacy Recit.	Pharmacy Recit.

COLLEGE CLASS SECOND YEAR

Monday

	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6
9-10	Physiology Lect.	Physiology Lect.	Physiology Lect.	Physiology Lect.	Physiology Lect.	Physiology Lect.
10-11	Chemistry Lab.	Chemistry Lab.	Chemistry Lab.	Phar'cog. Lab.	Phar'cog. Lab.	Phar'cog. Lab.
11-12	Chemistry Lab.	Chemistry Lab.	Chemistry Lab.	Phar'cog. Lab.	Phar'cog. Lab.	Phar'cog. Lab.
12-1	Chemistry Lab.	Chemistry Lab.	Chemistry Lab.	Phar'cog. Lab.	Phar'cog. Lab.	Phar'cog. Lab.
2-3	Physiology Recit.	Physiology Recit.	Pharmacy Recit.	Pharmacy Recit.	Chemistry Recit.	Pharmacy Recit.
3-4	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Recit.	Pharmacy Recit.	Pharmacy Recit.	Pharmacy Recit.
4-5	Chemistry Recit.	Pharmacy Recit.	Coml. Pharmacy	Coml. Pharmacy	Bacteriology ~~Lect~~	Bacteriology ~~Lect~~
5-6	Pharmacy Recit.	Chemistry Recit.	Coml. Pharmacy	Coml. Pharmacy	Bacteriology ~~Lab~~	Bacteriology ~~Lab~~

Wednesday

9-10	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
10-11	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.	Chemistry Lab.	Chemistry Lab.	Chemistry Lab.
11-12	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.	Chemistry Lab.	Chemistry Lab.	Chemistry Lab.
12-1	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.	Chemistry Lab.	Chemistry Lab.	Chemistry Lab.
2-3	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.
3-4	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
4-5	Coml. Pharmacy	Coml. Pharmacy	Bacteriology ~~Lect~~	Bacteriology ~~Lect~~	Pharmacy Recit.	Pharmacy Recit.
5-6	Coml. Pharmacy	Coml. Pharmacy	Bacteriology ~~Lab~~	Bacteriology ~~Lab~~	Physiology Recit.	Chemistry Recit.

Friday

9-10	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
10-11	Phar'cog. Lab.	Phar'cog. Lab.	Phar'cog. Lab.	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
11-12	Phar'cog. Lab.	Phar'cog. Lab.	Phar'cog. Lab.	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
12-1	Phar'cog. Lab.	Phar'cog. Lab.	Phar'cog. Lab.	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
2-3	Pharmacy Recit.	Pharmacy Recit.	Chemistry Recit.	Chemistry Recit.	Pharmacy Recit.	Physiology Recit.
3-4	Coml. Phar. Lect.	Coml. Phar. Lect.	Coml. Phar. Lect.	Coml. Phar. Lect.	Coml. Phar. Lect.	Coml. Phar. Lect.
4-5	Bacteriology ~~Lect~~	Bacteriology ~~Lect~~	Physiology Recit.	Pharmacy Recit.	Coml. Pharmacy	Coml. Pharmacy
5-6	Bacteriology ~~Lab~~	Bacteriology ~~Lab~~	Pharmacy Recit.	Physiology Recit.	Coml. Pharmacy	Coml. Pharmacy

UNIVERSITY CLASS FRESHMAN YEAR

<i>Tuesday</i>			
9-10	Botany Lect.	2-3	Chemistry Lect.
10-11	Chemical Lab.	3-4	Pharmacy Lab. } *
11-12	Chemical Lab.	4-5	Pharmacy Lab. }
12-1	Chemical Lab.		<i>Friday</i>
		9-10	Botany Recit.
2-3	Pharmacy Lect.	10-11	Physics Recit.
3-4		11-12	Anal. Chem. Recit.
4-5		12-1	Phar. Recit.
<i>Wednesday</i>			
9-10	English	2-3	American Government
10-11	American Government	3-4	English
11-12	Chemistry Recit.	4-5	
12-1	Pharmacy Recit.		<i>Saturday</i>
		9-10	Chemistry Lect.
2-3	Botany Lect.	10-11	Botany Lab. M M 9-10
3-4	Botany Lab. M M 9-10	11-12	Botany Lab. (11)
4-5	Botany Lab.—Posology* (11)	12-1	Botany Lab. (11)
<i>Thursday</i>			
9-10	Pharmacy Lect.	2-3	Physics Lect.
10-11	Pharmacy Lab. } *	3-4	American Government
11-12	Pharmacy Lab. }	4-5	English
12-1	Pharmacy Lab. }		*Botany Laboratory and Posology are given on alternate weeks.

UNIVERSITY CLASS SOPHOMORE YEAR

<i>Monday</i>			
9-10	Physiology Lect.	12-1	Phar'cog. Lab.
10-11	Pharmacy Lab.	2-3	Physics Lect.
11-12	Pharmacy Lab. } *	3-4	Chemistry Lect.
12-1	Pharmacy Lab. }		<i>Thursday</i>
2-3	German	9-10	German
3-4	Pharmacy Lect.	10-11	Chemistry Lab.
		11-12	Chemistry Lab.
<i>Tuesday</i>		12-1	Chemistry Lab.
9-1	¹ Pharmacy Lab. or	2-3	Bacteriology Lab. Let
	² Physics Lab.	3-4	Bacteriology Lab.
2-3	German	4-5	Bacteriology Lab.
3-4	Coml. Pharmacy		<i>Friday</i>
4-5	Coml. Pharmacy		
	¹ First half of term.	9-10	Chemistry Lect.
	² Second half of term.	10-11	Physiology Recit.
		11-12	Chemistry Recit.
<i>Wednesday</i>		12-1	Pharmacy Recit.
9-10	Pharmacy Lect.	2-3	German
10-11	German	3-4	Coml. Pharmacy Lect.
11-12	Phar'cog. Lab.	4-5	Pharmacy Recit.

* Phar during first half of year; Dispensing in 2nd half

UNIVERSITY CLASS JUNIOR YEAR

Lecture and recitation courses extending throughout the year.

Section A

Section B

Monday

32-	Theories of Chem. Lect.	Theories of Chem. Lect.
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Tuesday

9-10	Pharmacy Recit.	Chemistry Recit.
10-11	Pharmacy Lect.	Pharmacy Lect.
11-12	Chemistry Recit.	Pharmacy Recit.
12-1	Chemistry Lect.	Chemistry Lect.

Wednesday

12-1	Chemistry Lect.	Chemistry Lect.
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Laboratory Courses

All hours on Monday, Tuesday, Wednesday and Friday from 9-1 and 2-5, excepting those stated for lectures and recitations will be devoted to laboratory work.

Dept. Chemistry (Sept. 24-Jan. 11) <i>14 weeks</i>	Dept. Pharmacy (Sept. 24-Nov. 30)
Dept. Pharmacy (Jan. 14-Mar. 22) <i>10 weeks</i>	Dept. Materia Medica (Dec. 3-Feb. 8)
Dept. Materia Medica (Mar. 25-May 17) <i>8 weeks</i>	Dept. Chemistry (Feb. 11-May 17)

UNIVERSITY CLASS SENIOR YEAR

Lecture and recitation courses extending throughout the year.

Tuesday

9-10	Quantitative Anal. Lect.
10-11	Food Analysis Lect.
11-12	Bibliography
12-1	Pharmacy Lect.

Wednesday

2-3	Biological Chemistry Lect.
3-4	Physiology Lect.

Laboratory Courses

All hours on Monday, Tuesday, Wednesday, Thursday and Friday from 9-1 and 2-5, excepting those stated for lectures will be devoted to laboratory work.

Analytical Chemistry, Sept. 24-Nov. 16	} <i>8 weeks each</i>
Food Analysis and Toxicology, Nov. 19-Jan. 25	
Pharmacognosy and Taxonomy, Jan. 28-Mar. 22	
Pharmacy, Mar. 25-May 17	

ACADEMIC CALENDAR

1928

- June 11-Aug. 20. Summer Laboratory Courses.
 Aug. 20-Sept. 8. Summer Quiz Courses.
 Sept. 4-6. Registration for first year candidates.
 11-13. Supplementary Examinations.
 18-19. Registration for second, third and fourth year candidates.
 24. Monday, Ninety-ninth Session begins. Second, Third and Fourth
 Year Classes assemble 9 a. m.
 25. Tuesday, First Year Classes assemble 9 a. m.
 Oct. 1. Monday, Evening Special Course Classes assemble 7:00 p. m.
 Nov. 6. Tuesday, Election Day, Holiday.
 22. Thursday, to November 24, Saturday, inclusive. Thanksgiving
 Holidays.
 Dec. 20. Thursday, to

1929

- Jan. 2. Wednesday, inclusive, Christmas Holidays.
 3. Thursday, Sessions resumed.
 21-26. Mid-Year Examinations.
 Feb. 12. Tuesday, Lincoln's Birthday, Holiday.
 22. Friday, Washington's Birthday, Holiday.
 Mar. 29-30. Spring Holiday.
 Apr. 8. Monday, All classes. Last Day for applying for final examinations
 with payment of fee.
 May 3. Friday, Evening Courses close.
 13-17. Final College Course Examinations.
 13-22. Final University Course Examinations.
 May 27-30. Centennial Celebration.
 29. Wednesday, First and Second Year Exercises (Alumni Day).
 June 4. Tuesday, University Commencement.

SCHEDULE OF EXAMINATIONS

Supplementary Examinations

FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1928

- Sept. 11. Tuesday, 9-12 a. m., Pharmacy.
 Tuesday, 2-5 p. m., Physics.
 12. Wednesday, 9-12 a. m., Botany, Posology.
 Wednesday, 2-5 p. m., Chemistry.

SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 11. Tuesday, 9-12 a. m., Pharmacy.
 Tuesday, 2-5 p. m., Jurisprudence and Accounting.

12. Wednesday, 9-12 a. m., Materia Medica and Toxicology.
Wednesday, 2-5 p. m., Pharmaceutical Chemistry, Inorganic Chemistry (Univ.).
13. Thursday, 9-12 a. m., Physics (Univ.).
Thursday, 2-5 p. m., Organic Chemistry.

THIRD YEAR UNIVERSITY CLASS

- Sept. 11. Tuesday, 9-12, Pharmacy.
Tuesday, 2-5, Dispensing Pharmacy.
12. Wednesday, 9-12, Theories of Chemistry.
13. Thursday, 2-5, Organic Chemistry.

Mid-Year Examinations

Note. During this week regularly scheduled classes will be held during morning sessions, excepting the 9-10 a. m. lectures.

FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1929

- Jan. 22. Tuesday, 2-5, Botany, Posology.
23. Wednesday, 2-5, English, American Government.
24. Thursday, 2-5, Pharmacy.
26. Saturday, 2-5, Physics, Chemistry.

SECOND YEAR COLLEGE AND UNIVERSITY CLASS

- Jan. 21. Monday, 2-5, Physiology.
22. Tuesday, 2-5, German.
23. Wednesday, 2-5, Chemistry, Physics.
25. Friday, 2-5:30, Pharmacy, Commercial Pharmacy.

Final Examinations

FIRST YEAR COLLEGE AND UNIVERSITY CLASS

1929

- May 14. Tuesday, 9-12, Botany, Posology.
Tuesday, 2-5, Chemistry.
16. Thursday, 9-12, Physics.
Thursday, 2-5, Pharmacy.
18. Saturday, 9-12, English, American Government.

SECOND YEAR COLLEGE AND UNIVERSITY CLASS

- May 13. Monday, 9-12, Chemistry.
Monday, 2-5, Commercial Pharmacy, Jurisprudence.
15. Wednesday, 9-12, Pharmacy.
Wednesday, 2-5, Physiology.
17. Friday, 9-12, Physics.
Friday, 2-5, German.

THIRD AND FOURTH YEAR UNIVERSITY CLASSES

- May 20. Monday, 9-12, Junior and Senior Pharmacy.
Monday, 1-4, Junior, Theories of Chemistry.
Monday, 1-4, Senior, Inorganic Quantitative Analysis.
21. Tuesday, 9-12, Junior, Organic Chemistry.
Tuesday, 9-12, Senior, Food Analysis and Toxicology.
22. Wednesday, 9-5, Senior Biological Chemistry.
Wednesday, 9-5 Senior Physiology.

SYNOPSIS OF STUDIES SUBSEQUENT TO THE SESSION OF 1928-1929

COLLEGE CLASS

First and Second Years (The same as for 1928-1929)*Third Year*

(Beginning with the Session of 1929-1930.)

		Class Hours	Laboratory Hours	Points
MM 101-102	Materia Medica	3	0	6
MM 103-104	Toxicology	1	0	2
MM 109-110	Pharmaceutical Sundries	1	0	2
Chm. 103-104	Organic Chemistry	3	0	6
Chm. 107-108	New Remedies	2	0	4
Phr. 101-102	Theoretical Pharmacy	3	0	6
Phr. 103-104	Theoretical Dispensing Pharmacy	3	0	6
Phr. 105-106	Manufacturing Pharmacy	0	3	3
Phr. 107-108	Dispensing Pharmacy	0	4	4
Phr. 115-116	Business Pharmacy	0	4	4

UNIVERSITY CLASS

First and Second Years (The same as for 1928-1929)*Third Year*

(Beginning with the Session of 1929-1930.)

		Class Hours	Laboratory Hours	Points
MM 101-102	Materia Medica	3	0	6
MM 103-104	Toxicology	1	0	2
MM 111-112	Microscopic Pharmacognosy	$\frac{1}{2}$	$1\frac{1}{2}$	$2\frac{1}{2}$
Chm. 101-102	Theories of Chemistry	1	0	2
Chm. 103-104	Organic Chemistry	3	0	6
Chm. 105-106	Analytical Chemistry and Urine Analysis	0	10	10
Phr. 109-110	Theoretical Pharmacy	2	0	4
Phr. 111-112	Practical Pharmacy	0	5	5
Phr. 113-114	Practical Dispensing Pharmacy	0	2	2

Fourth Year

(Beginning with the Session of 1930-1931.)

MM 151-152	Applied Pharmacognosy	$\frac{3}{4}$	5	$6\frac{1}{2}$
MM 153-154	Botanical Taxonomy	0	$1\frac{1}{2}$	$1\frac{1}{2}$
MM 155-156	Human Physiology	1	0	2
Chm. 151-152	Inorganic Quantitative Analysis	1	8	10
Chm. 153-154	Food Analysis and Toxicology	1	8	10
Chm. 155-156	Biological Chemistry	1	0	2
Chm. 157-158	Chemical Bibliography	1	0	2
Phr. 151-152	Advanced Pharmacy	$1\frac{1}{2}$	0	3
Phr. 153-154	Advanced Pharmaceutical Assaying	0	7	7

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Columbia University

BULLETIN OF INFORMATION

Twenty-ninth Series, No. 52

September 28, 1929

COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

1929-1930



113-119 WEST 68TH STREET
NEW YORK

Columbia University Bulletin of Information

Twenty-ninth Series, No. 52

September 28, 1929

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1. Reports of the President and Treasurer to the Trustees.
2. The Catalogue Number, the Directory Number and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C. U. P. 21,500-1929

For special or more detailed information than is given in this announcement, applicants are requested to address the Registrar of the College, 115 West Sixty-eighth Street. His office hours are as follows: From September 1, 1929 to May 1, 1930, daily except Saturdays, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a. m. to 4 p. m.; Saturdays, 9:30 a. m. to 12 m.



COLLEGE OF PHARMACY OF THE CITY OF NEW YORK
113-119 WEST SIXTY-EIGHTH STREET

Columbia University

in the City of New York

COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

1929-1930



113-119 WEST 68TH STREET
NEW YORK

This College reserves the right to make such changes in the curriculum, schedule, calendar and regulations appearing in this announcement, as circumstances may require.

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1929

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Jan.	..	..	1	2	3	4	5	May	..	..	..	1	2	3	4	Sept.	1	2	3	4	5	6	7
	6	7	8	9	10	11	12		5	6	7	8	9	10	11		8	9	10	11	12	13	14
	13	14	15	16	17	18	19		12	13	14	15	16	17	18		15	16	17	18	19	20	21
	20	21	22	23	24	25	26		19	20	21	22	23	24	25		22	23	24	25	26	27	28
	27	28	29	30	31	..	..		26	27	28	29	30	31	..		29	30	..	..	..	..	..
Feb.	..	..	..	..	..	1	2	June	..	..	..	..	..	..	1	Oct.	..	..	1	2	3	4	5
	3	4	5	6	7	8	9		2	3	4	5	6	7	8		6	7	8	9	10	11	12
	10	11	12	13	14	15	16		9	10	11	12	13	14	15		13	14	15	16	17	18	19
	17	18	19	20	21	22	23		16	17	18	19	20	21	22		20	21	22	23	24	25	26
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March	..	..	..	..	..	1	2	July	30	..	..	..	..	..	..	Nov.	..	..	..	..	..	1	2
	3	4	5	6	7	8	9		..	1	2	3	4	5	6		3	4	5	6	7	8	9
	10	11	12	13	14	15	16		7	8	9	10	11	12	13		10	11	12	13	14	15	16
	17	18	19	20	21	22	23		14	15	16	17	18	19	20		17	18	19	20	21	22	23
	24	25	26	27	28	29	30		21	22	23	24	25	26	27		24	25	26	27	28	29	30
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	14	15	16	17	18	19	20		11	12	13	14	15	16	17		15	16	17	18	19	20	21
	21	22	23	24	25	26	27		18	19	20	21	22	23	24		22	23	24	25	26	27	28
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1930

Jan.	..	..	1	2	3	4	May	..	..	..	1	2	3	Sept.	..	1	2	3	4	5	6		
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	19	20	21	22	23	24		18	19	20	21	22	23		24	21	22	23	24	25	26	27	
	26	27	28	29	30	31		25	26	27	28	29	30		31	28	29	30	..	..	..	..	
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March	..	..	..	..	..	1	July	..	..	1	2	3	4	5	Nov.	..	..	..	..	..	1	..	
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1931

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March	1	2	3	4	5	6	7	July	..	..	1	2	3	4	Nov.	1	2	3	4	5	6	7		
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HENRY LEE NORRIS, M.E.....	<i>Director of Works</i>

COLUMBIA UNIVERSITY

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the School of Medicine with courses leading to the degree of Doctor of Medicine; the School of Engineering, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; the School of Library Service, with courses leading to the degrees of Bachelor of Science and Master of Science; Seth Low Junior College offering two years of collegiate work in preparation for admission to professional schools or to more advanced work in Liberal Arts and Sciences in Columbia University; the non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy.

In addition to these schools and faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; the College of Pharmacy of the City of New York, with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science and Doctor of Pharmacy; St. Stephen's College, Annandale, New York, an undergraduate college for men with courses leading to the degree of Bachelor of Arts; and the Union Theological Seminary, whose faculty conducts certain University work leading to the degree of Master of Arts.

The University maintains three sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma, is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standard of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The *Announcements* of each College or School, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

The *Announcement* of each School contains a schedule of fees and expenses for the courses in that School.

LIBRARY

The libraries of the University contain about 1,132,236 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture rooms and laboratories. The Avery

Architectural Library, the Law Library, the Ella Weed Library of Barnard College, Teachers College Library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

RESIDENCE HALLS

There are four residence halls for men on South Field: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Field, with accommodations of room and board for 360 students in the graduate and professional schools is a residence hall for women.

All the University residence halls, for both men and women, are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

Detailed information and advice concerning desirable rooms and boarding places in the vicinity of the campus for both men and women may be obtained by writing to the Residence Bureau, Room M, Earl Hall.

In addition to the dining-halls in John Jay and Johnson the University maintains the following cafeteria restaurants (*service à la carte*) which furnish wholesome food at moderate rates: The Commons (men and women) University; Barnard Hall Lunch Room (women) Barnard Hall; Teachers College Cafeteria (men and women) Grace Dodge Hall, 121 St. The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.

EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the Appointments Office, Residence Bureau, Men's Residence Halls Office (where may also be found the Director of Earl Hall who is in charge of social affairs on the campus), the Trophy Room and Lobby, containing team pictures and trophies. On the upper floor are located offices for the Chaplain of the University and the Director of Religious Activities; an audi-

torium seating 400 people is available for student receptions and dances. The first floor (entrance from Broadway) is occupied by the offices of the University Medical Officer.

MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Medical Officer.

THE COLLEGE OF PHARMACY

IMPORTANT ANNOUNCEMENTS

Graduate Course

Beginning with the session of 1928-1929, a graduate course of two years was inaugurated. This course, leading to the degree of Doctor of Pharmacy, is open to graduates with the Baccalaureate Degree, conferred by this College or by other schools of pharmacy maintaining equivalent courses of study. The course consists of two full years of study in residence. Thirty hours weekly are occupied in research work in the department representing the major subjects, and three hours weekly in each of the other two departments. For this session, not more than two students will be matriculated in each of the three departments.

Fourth Year, University Course

Due to lack of accommodations it will be possible for the year 1929-1930 to accept but a limited number in this class.

GENERAL STATEMENT

The one-hundredth annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 23, 1929.

In May, 1930, our first graduates of the reorganized and extended three-year College Course will receive their diplomas. Up to the present time, our two-year College Course, while giving thorough instruction in pharmacy, has not been considered as of sufficient scope to be entitled to University standing, and its diplomas have been issued by the College, independently. With the extension of the work to three years, based on entrance qualifications equivalent to those for admission to Columbia College, this deficiency is eliminated, and the diplomas of this course will hereafter bear the University name, this change being inaugurated with the graduating class of 1930.

THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the city. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus and Amsterdam Avenue lines connect with nearly all surface lines in the city. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College building was erected in 1894, after a study of the principal buildings of the kind in this country and abroad. So great has been the increase in the applications for admission that it was found necessary in 1923 to provide greater accommodations in the form of an additional connecting building.

In its planning, two principal objects were kept in view: first, provision for a large increase in the membership of the first and second-year classes; second, greatly increased and improved facilities for the work of the higher classes.

In connection with the latter, extensive provision has been made for research work, by both faculty and special students. Our library has also been greatly improved, the entire lower floor of the new building having been reserved for its accommodation.

THE LIBRARY

The library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy.

Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the General Library of Columbia University, on Morningside Heights, the Library of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great library of the Surgeon-General's office at Washington.

The library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library copies of the textbooks in use by the College may not be removed from the library.

INFORMATION BUREAU

The Information Bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the Bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service.

1. Telephone inquiries will be answered without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the Information Bureau, Trafalgar 1733, and will receive information immediately if it is accessible.
2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.
3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.
4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical or botanical periodicals will be prepared for those desiring to pay for such service.
5. As in the past, all visitors to the library, desiring to do their own research work, will be given courteous attention.

EMPLOYMENT FOR STUDENTS

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

The general plan adopted may be briefly stated as follows: Each pharmacist engages both a first- and second-year student, who shall work alternately three days during the week and half a day on Sunday. This allows the students half their time for College work and necessary rest. The College Course lectures are arranged so as to harmonize with this plan.

Any student wishing to secure employment should upon entering College communicate with the Registrar.

Within easy reach of the College are some three thousand pharmacies, where students who have had some experience in pharmacy may obtain employment with salary sufficient to pay the whole or a large part of their expenses while attending College.

APPLICATION FOR ADMISSION

Every candidate for admission to the College of Pharmacy is required to file with the Registrar of the College a personal application and a transcript of his high-school record, blank forms for which can be had upon application. He is also required to file an approval of his application for a pharmacy student qualifying certificate *before he can be accepted*, and he must secure the apprentice license before his matriculation can be considered complete.

NEW YORK STATE QUALIFYING CERTIFICATE

To be entitled to a pharmacy student qualifying certificate, the applicant must be at least seventeen years of age, and must have been graduated from an accredited four-year high-school course, or have covered courses acceptable to the Department of Education as a full equivalent thereof. A high-school or other secondary school course of study will not be considered acceptable unless the applicant has received the school diploma, and unless his or her record includes

English, four years

Science, two years.

Mathematics, two years.

Foreign language, two years.

History, one year.

Physiology, one-half year (unless the two years of science include biology or general science).

Civics, one-half year.

Sufficient electives to make up a full four-year course aggregating 15 units.

The fulfillment of these requirements must be officially guaranteed by a qualifying certificate issued by the New York State Department of Education. If the applicant is entitled to receive the certificate, he will be so notified by letter; which letter should be presented to the Registrar of the College of Pharmacy. Blank forms for making application for the certificate may be secured either from the Registrar's office or from the Department of Education at Albany.

APPRENTICE LICENSE

The apprentice license should be applied for when the candidate commences his experience in a pharmacy or drug store. Those who have had no experience before entering the pharmacy school, or whose experience has been in a drug store or pharmacy outside of New York State, will make application for their licenses through the school during the first week of the course, the Registrar acting as "preceptor." Blank forms for making application for the apprentice license may be secured either from the Registrar's office or from the Board of Pharmacy at Albany, N. Y.

HEALTH CERTIFICATE

All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. Appropriate blanks are furnished by the Registrar of the College.

COURSES OFFERED

Two regular courses of study are offered, known respectively as the College Course and the University Course, and three evening courses in the Departments of Materia Medica, Pharmacy and Chemistry.

THE COLLEGE COURSE

This course now comprises three full years of professional work, and is designed to fit the graduate for meeting the educational requirements of the Boards of Pharmacy of most of the states. The fundamental idea of this increase in time is generally accepted as being that of improving the quality of the work done, rather than of providing a large amount of additional work, this improvement applying particularly to the practical features of the course. The precise object of a course leading to the degree of Graduate in Pharmacy being to prepare such graduates for meeting the conditions of service in a retail pharmacy; the greater portion of the increased time has been assigned to the department of pharmacy, and to those features of the work of the other departments which are directly contributory thereto. After a careful study of the requirements, we have concluded that the time officially assigned for this course is insufficient, and we have added 128 hours for laboratory work in commercial and dispensing pharmacy.

The accomplishment of the better training that is sought necessarily calls for the introduction of new topics in the existing syllabi, and we call special attention to the following items.

We have always regarded a course in materia medica as being incomplete that did not include instruction in the apparatus, equipment and appliances included under the title of sick-room supplies, but no opportunity has heretofore offered for practical instruction of this kind. In our reorganized course, 32 hours will be devoted to explaining and illustrating the nature and use of articles of this class. Although technically pertaining to the subject of materia medica, this instruction forms an important part of the students' preparation in commercial pharmacy.

Another qualification that we deem requisite for every well-equipped pharmacist is a general knowledge of the nature and effects of bacteria in their relations with pharmacial practice. While we do not regard the conduct of a bacteriological laboratory as pertaining to the business of the ordinary pharmacist, we regard as necessary some knowledge of the principles of bacterial decomposition, sterilization and immunization, and 64 hours have been assigned for instruction in those subjects. While this subject, relating to the activities of plants, pertains technically to botany, it also has close relations with practical pharmacy.

One of the results of this addition of a third-year class will be a reduction in the annual matriculation, since the total capacity of the College is strictly limited. We are therefore obliged to announce that not more than 170 new students can be accepted for the session of 1929-1930.

THE UNIVERSITY COURSE

The Department of Health of the City of New York has placed the Bachelor of Science in Pharmacy, graduating from this course, in the position of being eligible to conduct a bacteriological laboratory or to fill similar positions.

The attention of prospective students is directed to the increasing call for graduates of advanced courses, to fill other professional positions. The general application of federal, state and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which formerly were often left to incompetent and irresponsible employees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

To meet these higher requirements, three-, four- and six-year courses of study, leading respectively to the degrees of Pharmaceutical Chemist (Ph.Ch.), Bachelor of Science in Pharmacy (B.S. in Phar.) and Doctor of Pharmacy have been established.

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. Members of the University Class only are recognized as students of the University, and certain of the University privileges are open only to them.

2. The University Class attends on five days weekly, instead of three, as does the College Class; and the course includes regular work in academic subjects, conducted by special instructors supplied by the Dean of the Faculty of Columbia College, this work receiving full credit from the University toward the baccalaureate degree.

The introduction of these courses to our University classes has proved highly successful, especially as to the reception accorded them by the students themselves. Not only has this instruction been appreciated by the University Class, but there have been many inquiries as to the possible future introduction of the work to the College Course.

3. For the University Class, the College provides a thorough course of laboratory instruction in advanced Chemistry, Pharmacy and Physics and special courses in Microscopy and Bacteriology, consisting of both theoretical and laboratory instruction.

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4. Not only are the degrees of Pharmaceutical Chemist and Bachelor of Science recognized as of higher rank than that of Graduate in Pharmacy, but the three- and four-year courses for which they are awarded qualify its recipients for many lines of pharmaceutical work that are not open to graduates from the College Course.

ENTRANCE REQUIREMENTS

COLLEGE COURSE

The admission to this course is conditional upon the limitations of available space. For many years past, the College has not been able to accommodate all who have applied for admission. For the session of 1929-1930, we shall have accommodations for only 170 applicants for admission to the course leading to the degree of Graduate in Pharmacy.

To be eligible for admission, the candidate must be at least seventeen years of age, and must meet the requirements for the pharmacy student qualifying certificate, as outlined on page 15.

THE UNIVERSITY COURSES

These are courses of full academic years (September to June) leading to graduation with the other departments of the University, and to the degree of Pharmaceutical Chemist, conferred by the University, at the end of the third year, and to that of Bachelor of Science in Pharmacy at the end of the fourth. It is to be noted here that for the session of 1929-1930 a limited number of fourth-year students can be accommodated.

The requirements for admission to this course are the same as those for Columbia College. The student must be seventeen years of age, must have graduated from a high school within or outside of the State of New York that is accredited by the Education Department of this State, and must present a pharmacy student qualifying certificate from the Education Department of this State, as outlined on page 15.

Under this course, two programs are offered, one leading to the degree of Pharmaceutical Chemist, and one to the degree of Bachelor of Science in Pharmacy.

The evidence of adequate preparation for admission to the University Course in the subjects required on the part of candidates who have not completed a year of college work, *includes both examination and school records.*

The subjects which candidates may offer in fulfillment of these requirements are outlined below. (A "unit" implies the study of a subject for a time equivalent to five hours weekly for one year.)

PRESCRIBED SUBJECTS

All candidates *must* offer:

ENGLISH	{ 1 (grammar and composition)	2 units
	{ 2 (literature)	1 unit
MATHEMATICS	{ ai (algebra to quadratics)	1 unit
	{ aii (quadratics and beyond)	1 unit
	{ c (plane geometry)	1 unit

EITHER	
(1) Latin ¹	4 units
OR	
(2) { Latin, Greek, French, German, Spanish or Italian 3 } { Physics or Chemistry 1 } { History 1 }	5 units
ELECTIVE SUBJECTS, to make up 15 units	4 or 5 units

ELECTIVE SUBJECTS

Group I

The candidate may offer any of the following subjects not included among his prescribed subjects, without other restriction than that to offer an advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject.

Biology—See Zoölogy	
The English Bible	1 unit
Elementary Greek	2 or 3 units
Elementary History	1 or 2 units
Drawing (Freehand or Mechanical)	1 unit
Music	1 unit
Intermediate French	1 unit
Intermediate German	1 unit
Intermediate Italian	1 unit
Intermediate Spanish	1 unit
Advanced French	1 unit
Advanced German	1 unit
Social Science	1 unit
Advanced Spanish	1 unit
Advanced Mathematics (College)	½, 1 or 1½ units
and in the case of candidates not offering 4 units in Latin:	
Elementary Latin	2 or 3 units

Group II

The candidate may offer not more than 4 units in all from the four subjects following:

Elementary French	2 units
Elementary German	2 units
Elementary Italian	2 units
Elementary Spanish	2 units

Group III

The candidate may offer not more than 3 units in all from the six subjects following:

Botany	1 unit
Chemistry	1 unit
Physics	1 unit
Physiography	1 unit
Shopwork	1 unit
Zoölogy	1 unit

¹ Greek, 3 units, may be substituted for Latin, in which case 6 elective units must be offered.

NEW METHOD

Under the "new method," candidates whose school and character records are entirely satisfactory, may meet the examination requirements by means of a psychological test. The school course must include three units in English, three in Mathematics (elementary and intermediate algebra and plane geometry), and at least three units in a foreign language, ancient or modern. It must have been concerned primarily with Languages, Science, Mathematics and History.

OLD METHOD

Under the "old method," the examination requirements for admission may be satisfied by any one of the three following means, or any approved combination thereof.

1. By the examinations of the College Entrance Board, held in June of each year at Columbia University and at about 150 other educational centers in the United States and abroad.

2. By the examinations conducted at Columbia University in September of each year, by the Director of University Admissions.

(The examination grades in connection with the above two methods are interpreted in the light of the record which students have made in school.)

3. By the examinations given in the high schools by the Education Department of the State of New York to students who have satisfactorily completed certain courses in these high schools. In these examinations, seventy-five per cent will ordinarily be regarded as the lowest passing mark.

For candidates qualifying for admission on the basis of examinations before Columbia University or the College Entrance Board, two methods are open:

- a. Examination in fifteen units.* A candidate may offer examinations in fifteen units as evidence of his preparation in secondary school subjects.

- b. Four examination plan.* A candidate who has completed a satisfactory secondary school course with a high degree of proficiency may, by special permission, satisfy the examination requirement by means of "comprehensive examinations" in not less than four subjects including those prescribed for admission.

Candidates entering by the old method are required to take the psychological examination for purposes of record only.

Those contemplating the September, 1929 examinations, must file their applications with the Secretary of Columbia University on or before September 7, 1929. Those who contemplate taking the June, 1930, examinations, must file their applications with the Secretary of the College Entrance Board at 431 West 117th Street, New York, N. Y., on or before May 26, 1930, for points on or east of Mississippi River; May 19, 1930, for points west of Mississippi River; May 5, 1930, for points outside U. S. or Canada. Blank forms of application for either series of examinations may be secured from the respective secretaries.

Every candidate for admission to the University Course should secure a copy of the current *Bulletin on Entrance Examinations and Admission* which may be had upon application to the Secretary of the University.

ADMISSION TO ADVANCED STANDING

Candidates may be admitted to advanced standing only upon a satisfactory record from their school of previous residence. Provided they are eligible for the pharmacy student qualifying certificate required by the New York State Department of Education, candidates who have completed, without condition, corresponding courses in a pharmacy school registered by the State Education Department, are eligible for admission to the second, third or fourth years, respectively.

FEES

The fees to be paid by students are subject to change at any time in the discretion of the Trustees. The following schedule is in force for the 1929-1930 session for students accepted in any of the regular courses leading to degrees.

	<i>College Course</i>	<i>University Course</i>
<i>First, Second and Third Years:</i>		
Registration Fee	\$5.00	\$5.00
Student Activities	10.00	10.00
Breakage Deposit	10.00	10.00
Examination Fee	10.00	10.00
Tuition	250.00	300.00
Laboratory Fees	45.00	60.00

Fourth Year:

Registration Fee	5.00
Breakage Deposit	10.00
Examination Fee	15.00
Tuition	300.00
Laboratory Fees	60.00

Fifth and Sixth Years, Graduate Course

Registration Fee	5.00
Breakage Deposit	25.00
Examination Fee	20.00
Tuition	350.00
Laboratory Fee	60.00

Special Courses. Students desiring to pursue individual courses as special students will be required to pay at the rate of \$7.50 per point.

Summer Courses. The fee for any laboratory course is \$25. for first-, second- and third-year work in the College Course. In the University Course, the fee is \$25. for first- and second-year work and \$50. for third- and fourth-year work.

Evening Courses. The fees for the various evening courses will be found among the descriptions of these courses, beginning on page 44.

Books and Supplies. It is estimated that an expenditure of \$50. will cover the cost of the textbooks and necessary apparatus required for the entire College Course, and of \$75. for the entire University Course for the Ph.Ch. degree. The heaviest expenditure in all cases will be in the first year; many of the required reference works being used also in subsequent years.

METHODS OF PAYMENT

Regular Courses

One of three methods for the payment of the tuition fee for the year may be elected by the candidate, as indicated below. In this connection, it is to be noted that all are required to pay the registration fee, the breakage deposit, the student activities fee and the first installment of the tuition fee at the time of registration. The dates for registration in the various classes will be found in the academic calendar on page 78.

A. Pay in full at the time of registration.

B. Pay one half of the tuition fee at the time of registration, and the balance on or before January 6, 1930. Under this arrangement, an additional \$3. must be added to the first installment.

C. Pay one third of the tuition fee at the time of registration; one third on or before December 2, 1929, and the balance on or before February 10, 1930. Under this arrangement, an additional \$5.00 must be added to the first installment.

A student, electing Plan B or C makes himself liable to suspension from further attendance if he fails to meet the payments when due.

Second-, third- and fourth-year students, who register after the last day set for their registration (see Academic Calendar) are required to pay an additional fee of \$5.00 for late registration.

Examination Fees. Dates upon which fees for examination in course are required will be found in the Academic Calendar.

The rate for re-examination is on the basis of \$5.00 for each subject in September and \$10. for the entire series in the spring.

Rebates. The registration and student activities fees shall not be subject to rebate.

In the case of the total withdrawal of a student from the College, a partial return of the tuition fee may be authorized by the Trustees, but in no case shall more than two thirds of the total charge for that year be returned.

Special, Summer and Evening Courses. Students registering in any of these courses are required to pay the tuition and other fees *in advance*.

METHOD OF INSTRUCTION

The instruction of each class during the first and second years of the College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College. During the third year, an additional half-day must be devoted to work in the pharmacy laboratory. All students who can do so are urged to devote their third year wholly to College work.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction

given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.

REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the Bulletin Boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

AUTHORITY OF THE DEAN

The Dean is the executive officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

REQUIREMENTS FOR ALL REGULAR STUDENTS

Attendance

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third- and fourth-year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during ninety per cent of the hours of instruction in each year, and during eighty per cent of those of each exercise. *The lectures and recitations in a subject constitute one "exercise."* For being late twice at daily opening the student will be charged with one absence. *For failure to comply with this condition, the student will forfeit the privilege of presenting himself for examination.*

Computation of attendance records will be based upon the total number of hours assigned a given course (page 28) during the academic year.

Advancement in Classes

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the passing mark being seventy-five per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations—but *not those* who have failed, without excuse, to present themselves thereat—will be allowed to undergo a single supplementary examination to be held as announced on page 78, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course, provided, however, that such students may be refused re-matriculation if, in the judgment of the Faculty, they are not qualified to be students of this College.

A student who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer, except in special cases.

By a regulation of the State Education Department, students failing in more than one subject must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 2, 1929.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examinations on paying an additional fee of \$10 and complying with all other requirements.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination.

All students must obtain a rating of seventy-five per cent or higher in every department in which they may be examined. Any student failing in one or more departments, but not in laboratory courses, may present himself for re-examination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without re-examination in the other departments. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 43.

Students of the third-year University Class failing in a laboratory course of a single department may be permitted to remove this failure during the Summer Laboratory Session. Students of this class failing in the laboratory courses of more than one department will be required to repeat in full those courses in which they fail, during the next regular session.

PRIZES AND SCHOLARSHIPS

The College reserves the right to withhold the award of any scholarship or prize, if in its opinion, no candidate has exhibited qualifications justifying the award.

HONOR ROLL. The College Classes and the University Classes shall have separate and distinct honor rolls. Those securing an average of 90 per cent or over in the year's work, shall constitute the honor rolls of their respective classes.

TRUSTEES' PRIZES. The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100. each, for the highest rating secured in competitive examination in the three departments of Chemistry, Pharmacy and Materia Medica. These competitive examinations are open to those members of the graduating class who have attained positions on the honor roll of the College Course. (If the number of these honor students be less than thirteen, a sufficient number of graduates having the next highest averages to make that number shall be permitted to compete for these prizes). A certificate, stating the honor for which the prize has been awarded, is also presented to each of the recipients.

ALUMNI ASSOCIATION PRIZES. The Alumni Fund of the College of Pharmacy provides annually for a gold, a silver and a bronze medal to be presented at Commencement to the three students having respectively attained the first, second and third highest standings in all branches taught during the third year of the College Course.

This Fund also provides for five additional prizes awarded annually on "Alumni Day" to members of the first- and second-year classes of the College Course, as follows: *Torsion Balance*, awarded to that second-year student who has secured the highest standing during the work of the two years; a copy of *The United States Dispensatory* to that student who has secured the highest standing during the work of the second year; a copy of Culbreth's *Materia Medica* awarded to that student securing the second highest standing in the work of the second year; a copy of Army's *Principles of Pharmacy* to that student who has secured the highest standing in the work of the first year, and a copy of Sadtler, Coblentz & Hostmann's *Pharmaceutical Chemistry* to that student who has secured the second highest standing in the work of the first year.

In the event that the winner of the *Torsion Balance* has the highest record for the second year, then *The United States Dispensatory* and Culbreth's *Materia Medica* shall be awarded respectively to the second and third member of the honor roll.

MAX J. BREITENBACH PRIZE. A cash prize of \$200, accompanied by a certificate, offered annually for the highest proficiency in the Junior (third year) University Class. This prize is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach, for many years a devoted trustee.

KAPPA PSI PRIZE. The Gamma Chapter of the Kappa Psi Fraternity offers annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

LILLIAN LEITERMAN PRIZE. A gold medal, offered annually by Miss Lillian Leiterman (1911), to that woman member of the graduating class who has maintained the highest standing throughout the entire three years of the College Course.

J. LEON LASCOFF PRIZES. Life membership in the American Pharmaceutical Association and in a State Pharmaceutical Association, offered annually by Trustee J. Leon Lascoff to the two members of the graduating class in the College

Course who have been prominent in student activities, who have maintained a high degree of general scholarship, and who are adjudged by the Faculty to be worthy of such awards.

TRUSTEES' SCHOLARSHIPS. To the four students who maintain the highest proficiency in their respective classes during the first and second years of the College and University Courses, the Board of Trustees of the College annually award scholarships for one year's tuition, to be applied to the following session of their respective courses.

GEORGE J. SEABURY SCHOLARSHIP. This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, Mr. George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the Senior (fourth) year of the University course, of that member of this class who has maintained the highest standing during the three years, provided, however, that such student is eligible for the degree of B.S. in Phar., and shall not receive both this scholarship and the Max J. Breitenbach prize.

ISAAC PLAUT FELLOWSHIP. This fellowship for the encouragement of graduate study and original research was founded by Mr. Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this fellowship must have secured the degree of B.S. in Pharmacy at this College, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this College who shall have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

The fellow shall be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He shall attend a foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and shall pursue a course of study approved by the Faculty. At the close of his incumbency he shall present to the Faculty a written report of his work.

The fellowship payment shall be made in three equal installments, one on June 15, one on November 1, and one on March 1, provided that the fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he shall forfeit all further privileges and emoluments conferred upon him by his appointment to the fellowship, and the Trustees of the College of Pharmacy may declare the fellowship vacant.

Since its foundation, the following Plaut Fellows have continued their studies towards the degree of Ph.D.

Moritz A. Dittmar, B.S., 1920, Ph.D., University of Bern, Switzerland, 1922. Assistant Superintendent of the laboratories of Lehn and Fink.

Herbert C. Kassner, B.S., 1921, Ph.D., University of London, England, 1924. Associate Professor of Chemistry, Columbia University, College of Pharmacy.

Helen A. Timmermann, B.S., 1925, Ph.D., University of London, England, 1927. Instructor in Materia Medica, Columbia University, College of Pharmacy 1927 to 1929.

Fred Levine, B.S., 1927, Samuel Goldberg, B.S., 1928, graduate students at the University of London, England.

N.B.—Competition for the Kappa Psi Prize, the Seabury Scholarship and the Plaut Fellowship is open only to those students who take their entire course at this College.

LOUIS SPENCER LEVY RESEARCH SCHOLARSHIP. This scholarship has been provided by Mr. Louis Spencer Levy for a period of two years, beginning with the session of 1928-1929. It affords free tuition to that B.S. or Ph.Ch. who is deemed qualified by the Faculty to do research work and who will devote the greater portion of his time to investigations of the effect and usefulness of ultra-violet radiations in the field of essential oils and perfume materials, this work to be done under the direction of the head of the Department of Pharmacy.

E. R. SQUIBB PRIZE. This is an annual cash prize of \$100., offered by Messrs. E. R. Squibb & Sons, in memory of Dr. E. R. Squibb. It is awarded to that Graduate in Pharmacy who exhibits the greatest proficiency in Analytical Chemistry during his third year, as determined by the laboratory records.

LOUIS DOHME PRIZE. This is an annual cash prize of \$100., founded by Mr. Ernest Stauffen, in memory of Mr. Louis Dohme. It is awarded to that Graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopœia and National Formulary, as determined by the laboratory records and examinations.

JOSEPH WEINSTEIN PRIZE. This prize consists of a compound microscope and is established by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that Graduate in Pharmacy who has exhibited the greatest proficiency in Analytical Chemistry during the three years, as determined by the laboratory records, and who has not secured any other prize.

ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that Graduate in Pharmacy who has obtained the highest general average in practical laboratory work during the third year.

LEHN and FINK PRIZE. This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the Graduate in Pharmacy attaining the highest standing at the examinations in Pharmacy.

WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that member of the graduating class of the College Course who has attained the highest general average in practical laboratory work, during the three years in the Department of Pharmacy.

GERMAN APOTHECARY'S ASSOCIATION PRIZE. In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited during the final year of the College Course the greatest proficiency in the compounding of prescriptions.

OLSHANSKY MEMORIAL MEDAL. This is a gold medal, founded by the students of this College in attendance upon the session of 1923-1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in the final year of the College Course in the subject of Dispensing Pharmacy.

SYNOPSIS OF STUDIES FOR THE SESSION OF 1929-1930

COLLEGE COURSE

First Year

		Class Hours	Laboratory Hours	Points
MM ⁷ 1-2	Botany	2	0	4
MM 3-4	Botany	1	4	6
MM 5-6	Posology	1	0	2
Chm. 1-2	General Physics	2	0	4
Chm. 3-4	Inorganic Chemistry	3½	0	6½
Chm. 5-6	Analytical Chemistry	1½	3	4
Phr. 1-2	Theory of Pharmacy	3	0	6
Phr. 3	Manufacturing Pharmacy	1	3	2½
Phr. 8	Dispensing Pharmacy	1	3	2½

Second Year

MM 53-54	Pharmacognosy	0	3	3
MM 57-58	Human Physiology and Hygiene	2	0	4
MM 59-60	Microbiology	1	1	3
Chm. 51-52	General Physics	1	0	2
Chm. 55-56	Inorganic Chemistry	3	0	6
Chm. 59-60	Analytical Chemistry	0	3	3
Phr. 51-52	Theory of Pharmacy <i>+ Lab.</i>	3	0	6
Phr. 54	Manufacturing Pharmacy	1	3	2½
Phr. 55	Dispensing Pharmacy	1	3	2½
Phr. 59-60	Pharmaceutical Jurisprudence and Commercial Pharmacy	1½	1½	4½

Third Year

MM 101-102	Materia Medica	3	0	6
MM 103-104	Toxicology	1	0	2
MM 109-110	Pharmaceutical Sundries	1	0	2
Chm. 103-104	Organic Chemistry	4 3½	0	7½
Chm. 107-108	Newer Remedies	1½	0	3½
Chm. 109 (110)	Analytical Chemistry	0	6	3
Phr. 101-102	Theoretical Pharmacy	3	0	6
Phr. 103-104	Theoretical Dispensing Pharmacy	2	0	4
Phr. 105 (106)	Manufacturing Pharmacy	0	6	3
Phr. 107-108	Dispensing Pharmacy	0	4	4
* Phr. 115-116	Business Pharmacy and Jurisprudence	1½ 3	1½	6½

UNIVERSITY COURSE

First Year

MM 1-2	Botany	2	0	4
MM 7-8	Posology	½	0	1
MM 9-10	Plant Morphology and Histology	1	4½	6½
Chm. 1-2	General Physics	2	0	4
Chm. 3-4	Inorganic Chemistry	3½	0	6½

3 class hours are scheduled for Indep. College Class and only 2 hrs for Univ. Class. See pages 74, 75, 76

		Class Hours	Laboratory Hours	Points
Chm. 7-8	Analytical Chemistry	1 ~~1/2~~	3	4
Phr. 1-2	Theory of Pharmacy	3	0	6
Phr. 5	Manufacturing Pharmacy	1	5	3 1/2
Phr. 10	Dispensing Pharmacy	1	5	3 1/2
Coll. 1-2	English	3	0	6
Coll. 3-4	American Government	3	0	6

Second Year

MM 55-56	Macroscopic Pharmacognosy	0	2	2
MM 57-58	Human Physiology and Hygiene	2	0	4
MM 61-62	Bacteriology	1	2	4
Chm. 51-52	General Physics	1	0	2
Chm. 54	Practical Physics	0	4	2
Chm. 55-56	Inorganic Chemistry	3	0	6
Chm. 57-58	Analytical Chemistry	0	3	3
Phr. 51-52	Theory of Pharmacy	3	0	6
Phr. 54	Manufacturing Pharmacy	1	3	2 1/2
Phr. 57	Dispensing Pharmacy	1	7	4 1/2
Phr. 59-60	Pharmaceutical Jurisprudence and Commercial Pharmacy	1 1/2	1 1/2	4 1/2
Coll. 51-52	German	5	0	10

Third Year

MM 101-102	Materia Medica	3	0	6
MM 103-104	Toxicology	1	0	2
MM 111-112	Microscopic Pharmacognosy	~~1/2~~	2 1/2	2 ~~1/2~~
Chm. 101-102	Theories of Chemistry	1	0	2
Chm. 103-104	Organic Chemistry	3	0	6
Chm. 106	Analytical Chemistry and Urine Analysis	0	10	10
Phr. 109-110	Theoretical Pharmacy	3	0	6
Phr. 111	Manufacturing Pharmacy	0	5	5
Phr. 113	Practical Dispensing Pharmacy	0	3	3
* Phr. 115-116	Phr. and Jurisprudence	1 ~~1/2~~	1 1/2	4 1/2
Coll. 101-102	Mathematics	2 1/2	0	5

Fourth Year

MM 152	Applied Pharmacognosy	1 ~~1/2~~	5	6 1/2
MM 154	Botanical Taxonomy	0	1 1/2	1 1/2
MM 155-156	Human Physiology	1	0	2
Chm. 151-152	Inorganic Quantitative Analysis	1	8	10
Chm. 153-154	Food Analysis and Toxicology	1	8	10
Chm. 155-156	Biological Chemistry	1	0	2
Chm. 157-158	Chemical Bibliography	1	0	2
Phr. 151-152	Advanced Pharmacy	1 ~~1/2~~	0	3 1/2
Phr. 153-154	Pharmaceutical Assaying	0	7	7

COURSES OF INSTRUCTION

Materia Medica 1-2—Botany (for University Freshmen and first-year College Students). Lectures and recitations 2 hours, 4 points. Professor HART and instructors.

The object of this course is to prepare the student for an understanding of that part of *materia medica* which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction embraces the morphology of the higher plants, from which nearly all of our vegetable drugs are derived, the terms used in official description, systems of classification, botanical nomenclature, and the relations of the lower to the higher plants.

The lectures are illustrated by large colored charts, and in some cases, with cards in the hands of the students.

For the use of the instructor in the Quiz Room, the Alumni Association has provided an elaborate series of *papier-mâché* models arranged to illustrate structure and dissection.

Textbook: Rusby, *Manual of Botany*.

Materia Medica 3-4—Botany laboratory (first-year College Students). Lectures and recitations 1 hour, laboratory 4 hours, 6 points. Professors BALLARD, HART and TAUB and instructors.

Gross Botany.—Pharmacognosy, while itself not a science, may be regarded as the art of applying scientific knowledge to the examination of drugs. The theoretical and practical training of the lecture and recitation room is designed to fit the student for such botanical observations as can ordinarily be made with the naked eye.

To enable him to extend these observations by the use of the simple or dissecting and the compound microscope, in preparation for the study of pharmacognosy in the following year, a course of laboratory instruction is provided. This portion of the work is under the direction of Professor Hart, and consists in thoroughly training the students in the use of the simple microscope, and in teaching the structure of all parts of the plant which can be studied with that instrument.

The material for these studies is collected during the summer season, and carefully selected with a view to best illustrating the points brought out in the lecture room.

Vegetable Histology.—As ability to properly use a microscope is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts of the instrument. The uses of the various types of objectives, oculars, illuminating apparatus and mechanical accessories are explained and demonstrated. The details of sectioning, embedding, staining and mounting specimens are illustrated by demonstrations, and at least part of the work is performed by the student.

The course under the direction of Professor Ballard includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant. Each student prepares a set of specimens for use in the course and is required to follow the lecture explanations by personal observation and drawings illustrating the topics considered at each session.

Textbooks: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.

Materia Medica 5-6—Posology (first-year College Students). Lectures and recitations 1 hour, 2 points. Professor H. TAUB.

The average dosage of U. S. P. and N. F. drugs is considered with the object of teaching the student to recognize an overdose in actual prescription practice. The course covers the analysis

of safe and dangerous prescriptions, approximate equivalents and conversion methods from one system into the other, and dosage of non-official but commonly prescribed synthetic remedies.

Materia Medica 7-8—Posology (for University Freshmen). Lectures and recitations $\frac{1}{2}$ hour, 1 point. Professor H. TAUB.

The relationship in dosage of chemically similar substances and botanically related drugs is considered during the first portion of the course; the material of the College Course is given in brief in the latter half.

Materia Medica 9-10—Plant morphology and histology (for University Freshmen). Lectures 1 hour, laboratory $4\frac{1}{2}$ hours, $6\frac{1}{2}$ points. Professors BALLARD, HART, TAUB and instructors.

Morphology.—The laboratory course in morphology is designed to supplement the lectures in pharmaceutical botany (*MM. 1-2*). It affords practical training in simple plant dissection, both with and without the dissecting microscope, thereby illustrating the topics considered in the above lecture course and fitting students for the advanced studies of pharmacognosy and taxonomy.

Histology.—This section of the course includes a detailed study of the various cellular elements considered both as individual tissues and as integral parts of plant organs. This is followed by a systematic review of the derivation of these tissues and organs in the evolution of the higher forms of plant life from the lower. One or more representative orders of the Thallophyta, Bryophyta, Pteridophyta and Spermatophyta will be studied in detail.

Textbooks: Ballard, *Elements of Vegetable Histology*, 2nd Edit.; Ballard and Hart, *Laboratory Manual*; Rusby, *Manual of Botany*; Curtis, *Nature and Development of Plants*.

Materia Medica 53-54—Pharmacognosy, macroscopic and microscopic (second-year College Students). Laboratory 3 hours, 3 points. Professors BALLARD, TAUB and instructors.

Macroscopic.—This part of the course comprises laboratory instruction in the classification, identification and description of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial sources; official description, definition and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. Botany (Courses *MM. 1-2, 3-4* or equivalent) are prerequisite to a proper understanding of the work in this course.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*.

Microscopic.—The preliminary work of this part of the course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (Course *MM. 3-4*) is coördinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements *in situ* and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

Textbooks: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.

Materia Medica 55-56—Macroscopic pharmacognosy (for University Sophomores). Laboratory 2 hours, 2 points. Professors BALLARD and TAUB.

This course includes all of the instruction offered in *Macroscopic Pharmacognosy MM. 53-54*, but in addition many non-official articles of commercial and technical importance are studied. Experience in manufacturing fields has shown that these non-official drugs and drug materials are in frequent use and familiarity with them is especially important in view of their non-inclusion in the Pharmacopœia and National Formulary.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*; Youngken, *Pharmacognosy*.

Materia Medica 57-58—Human physiology and hygiene (for University Sophomores and second-year College Students). Lectures and recitations 2 hours each, 4 points. Professor RUSBY and instructors.

In addition to the skill in Pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in human physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies, in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of materia medica as is properly required of the practicing pharmacist.

Textbook: Bachman and Bliss, *Essentials of Physiology*.

Materia Medica 59-60—Microbiology (second-year College Students). Lectures and recitations 1 hour, laboratory and demonstrations 1 hour, 3 points. Professor HART and instructors.

This subject constitutes an introduction to the nature, behavior and effects of microorganisms, especially of bacteria. Without entering upon the subject of practical laboratory bacteriology, as is done in the University Course, it discusses the life history of bacteria, and the part that they play in fermentation and decomposition, as well as in disease, and indicates the general nature of the means employed in combatting them, and treats of biological products. The subject of sterilization, as employed in the pharmacy, and the principles of antiseptics and immunization are studied.

The study of yeasts, molds and blood smears is included in this course.

Materia Medica 61-62—Bacteriology (for University Sophomores). Lectures 1 hour, laboratory 2 hours, 4 points. Professor HART and instructors.

The bacteriological laboratory in our new building has been fully equipped, and practical work in this important field is taken up. The general principles of the science are taught, and the students cultivate, stain, and study the more important microorganisms. Laboratory methods in the bacterial examination of water, air, milk, ice, sputum and excreta are given, and methods of disinfection and sterilization are practically demonstrated.

Park and Williams, *Pathogenic Microorganisms*.

Materia Medica 101-102—Materia medica (for University Juniors and third-year College Students). Lectures and recitations, 3 hours, 6 points. Professors RUSBY, TAUB and instructors.

This course includes instruction in both the inorganic and organic divisions of drugs. In connection with the extension of our course to three years, the instruction in materia medica has been completely reorganized and a new textbook has been written for the students. In the new arrange-

ment, the drugs have been classified in accordance with their medicinal uses. Discussion of the individual drugs covers the official titles, abbreviations, definitions and standards, origin, preparation, preservation, variations in quality and causes of such variation, constituents, properties and uses, preparations and doses. All instruction in description, structure and identification, and the detection of adulterants and impurities is referred to the extensive course in pharmacognosy.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

Materia Medica 103-104—Toxicology (third-year College and University Classes). Lectures and recitations, 1 hour, 2 points. Professors RUSBY and TAUB and instructors.

The classification of poisons is based upon the physiological action of medicines, taught in the preceding year, and is synoptically presented at the beginning of the course in materia medica. The toxicology of the individual drugs is then taken up in detail in connection with their physiological action and medicinal uses. Experience has shown that by this method the modes of occurrence of poisoning accidents, the poisonous doses, the action of poisons and their rational treatment, are all made more intelligible to the student, and are better impressed upon his memory, than by treating the subject as entirely disconnected from that of materia medica.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

Materia Medica 109-110—Pharmaceutical sundries (third-year College Students). Lectures 1 hour, 2 points. Professor BALLARD.

This course includes a systematic presentation of the facts of interest to the retail pharmacist in the use and sale of the ordinary sick-room sundries. The course is thus linked with materia medica on the one hand and commercial pharmacy on the other. Among the topics considered are—bandaging and dressing materials, rubber sundries, glass and metal appliances, ligatures and first-aid apparatus.

Materia Medica 111-112—Microscopic pharmacognosy (for University Juniors). Lectures $\frac{1}{2}$ hour, laboratory $1\frac{1}{2}$ hours, $2\frac{1}{2}$ points. Professors BALLARD, TAUB and instructors.

This course consists in a detailed study of the histological structure of the several plant organs, followed by a consideration of the characters and adulterants of the commonly used powdered drugs. It includes the preparation of specimens both in sectioned and powdered forms and the application of stains and microchemical tests to the materials so prepared.

Textbook: Ballard, *Laboratory Manual*.

Materia Medica 152—Applied pharmacognosy (for University Seniors). 2 hours lecture, 20 hours laboratory for eight weeks beginning March 24, 1930. $6\frac{1}{2}$ points. Professors BALLARD and HART.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials, using these sections for the demonstration of staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work, it is expected that the student will avail himself of the library facilities of the College and freely use the economic drug and food collections of the laboratory for reference and comparison purposes. The aim is to duplicate actual commercial laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, so far as possible, be commercial products which have been analyzed by microscopical methods.

References: Winton, *Microscopy of Vegetable Foods*; Youngken, *Pharmacognosy*.

Materia Medica 154—Botanical taxonomy (for University Seniors). 6 hours laboratory for eight weeks beginning March 24, 1930. 1½ points. Professor RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Textbook: Rusby, *Manual of Botany*.

References: Bentham and Hooker, *Genera Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

Materia Medica 155-156—Human physiology (for University Seniors). Textbook and conferences 1 hour, 2 points. Miss HOPPING.

This course consists of a series of discussions, based on assigned reading, occupying 1 hour weekly throughout the term.

Textbook: Howell, *Physiology*.

Chemistry 1-2—General physics (for University Freshmen and first-year College Students). Lectures and recitations 2 hours, 4 points. Professor A. TAUB and instructors.

This course is so arranged as to emphasize those phases which have a direct bearing upon chemistry and pharmacy. After a consideration of the general properties of matter and the elements of mechanics a number of lectures are devoted to the discussion of the kinetic molecular theory and to wave motion. This is then followed by the consideration of chapters on sound and heat.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of physical apparatus.

Textbook: Stewart, *College Physics*.

Chemistry 3-4—General inorganic chemistry (for University Freshmen and first-year College Students). Lectures and recitations 3½ hours, 7 points. Professors ARNY and A. TAUB and instructors.

This course, the beginning of consecutive instruction in chemistry covering three years, is given to the first-year students of both the College and the University Classes. It opens with a careful consideration of the fundamental principles of chemistry, special attention being given to the modern theories concerning valence, chemical equilibrium, oxidation and reduction and atomic structure.

Exercises in writing and calculating chemical equations and work on problems in chemical arithmetic are given in special quiz periods devoted exclusively to these important subjects.

On the side of descriptive chemistry, the non-metals and their compounds are discussed from their cultural, technical and pharmaceutical viewpoints.

Textbooks: Deming, *General Chemistry*, second edition; *U. S. Pharmacopœia*.

Chemistry 5-6—Analytical chemistry (first-year College Students). Recitations ½ and laboratory 3 hours, 4 points. Professors SCHAEFER and MAC-SATA and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized

and separations and identifications of group members are performed. Finally, all facts required by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on unknown samples.

Textbook: Schaefer & Bliss, *Qualitative Chemical Analysis*.

Chemistry 7-8—Analytical chemistry (for University Freshmen). Recitations $\frac{1}{2}$ and Laboratory 3 hours, 4 points. Professor KASSNER and instructors.

The student will first be made familiar with laboratory processes by means of a course of experiments in general chemistry, involving the isolation of certain elements, a study of their physical and chemical properties, and of their principal compounds. Simple laws and phenomena will be explained to the student in the course of this work. In this way, experience in manipulation, and a true understanding of the subject will be obtained.

This preliminary course leads to a systematic course in qualitative analysis and during the first year the reactions of the basic ions are studied. The student is taught the separation and identification of these, and finally is required to analyze systematically solutions containing two or more basic ions.

Chemistry 51-52—General physics (for University Sophomores and second-year College Students). Lectures and recitations. 1 hour, 2 points. Professors SCHAEFER and A. TAUB.

This course is a continuation of *Chemistry 1-2* (General Physics) and embraces the subjects of magnetism, electricity and light. Special consideration is given to ionization, electrolysis, the electron hypothesis, vacuum tubes, the spectroscope, spectrum analysis, double refraction and the polariscope.

The lectures will be accompanied and made more interesting by many exhibitions and experiments.

Textbook: Stewart, *College Physics*.

Chemistry 54—Practical physics (for University Sophomores). Laboratory course 4 hours, 2 points. Professor A. TAUB and instructors.

The course consists of sixteen half-day periods of four hours each, given during the second half of the year.

This work consists of experiments in fundamental physical measurements followed by special work in mechanics, heat, light, sound and electricity. The laboratory is equipped not only with apparatus for routine exercises, but has the appliances necessary for work in colorimetry, spectroscopy, spectrophotometry, refraction, calorimetry and electro-chemistry.

Chemistry 55-56—Inorganic chemistry (for University Sophomores, and second-year College Students). Lectures and recitations 3 hours, 6 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of *Chemistry 3-4* will be devoted to a consideration of the metallic elements and their compounds. It will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry will be discussed. In descriptive chemistry, the course will consider all of the more important metallic elements. These will be discussed from the standpoint of modern industrial chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition.

Chemistry 57-58—Analytical chemistry (for University Sophomores). Laboratory course 3 hours, 3 points. Professor KASSNER and instructors.

The course in qualitative analysis begun in the first year is continued through the first half of the second year. The sequence of work is as follows:—(1) the study of the acidic-ions according to an analytical scheme of separation; (2) a systematic method of preliminary testing of unknown compounds; (3) the preparation for analysis of water-insoluble substances; and (4) the complete qualitative analyses of unknown solutions or powders containing two or more compounds.

The second half of the year's work is devoted to a course in volumetric analysis. This begins with the study of general principles and theoretical considerations, the theory of indicators, pH values

and the use of the analytical balance. It continues with the preparation of certain volumetric solutions and their uses in quantitative analysis by (1) neutralization (2) precipitation, (3) oxidation and reduction, and (4) iodimetry.

Chemistry 59-60—Analytical chemistry (second-year College Students). Laboratory course 3 hours, 3 points. Professors SCHAEFER and MACSATA and instructors.

The first half of the second-year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

The second half of the school year is devoted to the theory and practice of volumetric analysis. The proper preparation of volumetric solutions is given consideration and all types of N. S. P. volumetric assays are conducted. The theories of indicators are presented and considerable time is devoted to the calculations involving a knowledge of volumetric analysis.

Textbooks: *U. S. Pharmacopeia*, Schaefer and Bliss, *Qualitative Chemical Analysis*.

Chemistry 101-102—Theories of chemistry (for University Juniors). Lectures and recitations 1 hour, 2 points. Professor SCHAEFER.

The object of this course is to bring together, to correlate and to elaborate somewhat the various theories presented to the student in the regular chemistry and physics lectures. Consideration is given to the kinetic theory, the gas laws, the laws governing change of state, the quantitative laws of chemical combination, the atomic hypothesis, the laws of valence, the periodic system, radioactivity, atomic disintegration, atomic structure, solubility, ionization, indicators, equilibrium, electrochemistry and colloids.

Special importance is placed upon the practical application of modern theories of physical chemistry to analytical processes and methods.

Textbook: Chapin, *College Chemistry*.

Chemistry 103-104—Organic chemistry (for University Juniors and third-year College Students). Lectures and recitations 3½ hours, 7 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of *Chemistry 3-4* and *55-56*, will be devoted to a comprehensive study of the carbon compounds; special care being taken to keep the course abreast the new applications of organic chemistry in pharmacy and medicine. The preparation of the more common organic chemicals is given careful consideration and advances under modern methods of research are presented to the class as they are reported.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; *U. S. Pharmacopeia*.

Chemistry 107-108—Newer remedies (third-year College Students). Lecture and recitations 1½ hours, 3 points. Professor SCHAEFER and instructors.

The aim of this course is to make the students familiar with the many preparations generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given.

Textbooks: *New and Non-official Remedies*.

Chemistry 109—Analytical chemistry (third-year College Students). Laboratory 6 hours for $\frac{1}{2}$ year, 3 points. Professors SCHAEFER, MACSATA and instructors.

This course will be given in six-hour periods to one section during the first half year and to the other section during the second half. This will enable the student to perform operations which require more time than is available in the usual three-hour period. The course will be devoted entirely to pharmaceutical testing and assaying. Some of the more important operations to be carried out are:—The preparation and standardization of volumetric solutions, testing the purity and strength of official chemicals and galenicals, selected gravimetric determinations, iodine values, saponification values, examination of oils, identification of alkaloids. The assay of crude drugs will be given special attention by dividing the section into still smaller groups for this work thus insuring better and more careful supervision. Practice will of course be given in the use of the analytical balance.

Textbooks: *United States Pharmacopœia and National Formulary.*

Chemistry 110—Same as *Chemistry 109*, but given during the second half of year.

Chemistry 106—Analytical chemistry and urine analysis (for University Juniors). Laboratory, 17 hours for 18 weeks, beginning December 16, 1929, 10 points. Professor KASSNER and instructors.

During the first part of the course, the student is supplied with pure and adulterated samples of official organic chemicals and is required to test them for identity and purity to determine whether they conform to the requirements of the Pharmacopœia, each sample studied representing a typical class of organic compound. This work also involves the determination of congealing, boiling and melting points, fractionations, alcoholmetric estimations and other determinations of like character.

The second section of the course is devoted to volumetric analysis, the solutions used being prepared and standardized by the student. The substances assayed include antiseptics, disinfectants, ointments, volatile oils, etc.

The third part of the year's work deals with the assaying of vegetable drugs, including the determination of alkaloids in crude drugs and their pharmaceutical products, crude fiber, soluble extractive, etc.

The above course is concluded with certain miscellaneous assays. The final period is devoted to the analysis of urine.

Textbook: *U. S. Pharmacopœia.*

Chemistry 151-152—Inorganic quantitative analysis (for University Seniors). Lectures 1 hour a week for 32 weeks, laboratory, 29 hours a week for 8 weeks, beginning September 23, 1929, 10 points. Professor KASSNER and instructors.

The aim of this course is to train the student to carry out with precision many of the more difficult analyses of chemical and pharmaceutical products.

The laboratory work of the course consists, in the main, of a series of selected gravimetric determinations covering a wide field of substances, chosen to illustrate typical methods of procedure. This work is supplemented by operations involving the use of the viscosimeter, bomb calorimeter, etc.

In the lecture course, methods of quantitative analysis, gravimetric, volumetric, colorimetric, etc., are discussed at length and compared.

Reference books: Clowes and Coleman, *Quantitative Analysis*. Scott, *Standard Methods of Chemical Analysis*.

Chemistry 153-154—Food analysis and toxicology (for University Seniors). Lectures 1 hour a week for 32 weeks, laboratory 29 hours a week for 8 weeks, beginning November 18, 1929, 10 points. Professors ARNY and KASSNER and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course describing the various chemical and physical methods of food examination.

Textbooks: Leach, *Food Analysis*; Mason, *Examination of Water*.

Reference Books: Allen, *Commercial Analysis*; Autenrieth-Warren, *Detection of Poisons*.

Pharmacy 1-2—Theory of pharmacy (including metrology and pharmaceutical arithmetic) (first-year College and University Classes). Lectures 2 hours, Recitation 1 hour. Professors WIMMER, BROWN, CARTER and instructors. 6 points.

This course introduces the student to the fundamentals of pharmaceutical science. It includes a series of lectures on the history of pharmacy, beginning with the Egyptian age and tracing it through the Roman, Arabian and European periods up to the present time. Special stress is laid on the historical development of American pharmacy, its organization and its code of ethics.

The course continues with the study of elementary pharmaceutical operations, such as evaporation, distillation, sublimation, solution, crystallization, precipitation, filtration, etc. The lectures are profusely illustrated by exhibitions of apparatus and lantern slides.

The lectures in pharmaceutical arithmetic begin with the subject of metrology and cover the simpler kind and type of calculation used in pharmacy.

Textbooks: *U. S. Pharmacopœia X*; Arny's *Principles of Pharmacy*; Sturmer, *Pharmaceutical Arithmetic*.

Pharmacy 3—Manufacturing pharmacy laboratory (first-year College Class). Laboratory course, 3 hours, Recitation 1 hour, 16 weeks beginning September 24, 1929. Professors BROWN, DORFMAN and instructors. 2½ points.

The work of this course is elementary in nature and affords students the opportunity to apply practically their theoretical knowledge of the different systems of weights and measures, the determination of the specific gravities of various substances, the determination of alcoholic contents of liquids, the purification and granulation of salts and the manufacture of simple galenical preparations.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes* and *U. S. Pharmacopœia*.

Pharmacy 5—Manufacturing pharmacy laboratory (Freshmen University Class). Laboratory course, 5 hours, Recitation 1 hour, 16 weeks beginning September 24, 1929. Professor CARTER and instructors. 3½ points.

The work of this course is identical with that outlined under course 3 for the first-year College Class, with an additional two hours of laboratory work. It is the purpose of this course not only to provide the University student with the same work that is done by the College student, but also to give him additional time to the performance of such work as pertains to retail pharmacy, inasmuch as the work of his third year will be essentially devoted to operations pertaining to the manufacture of chemicals on a large scale.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes* and *U. S. Pharmacopœia*.

Pharmacy 8—Dispensing pharmacy laboratory (first-year College Class). Laboratory course, 3 hours, Recitation 1 hour, 16 weeks beginning January 28, 1930. Professors BROWN, DORFMAN and instructors. 2½ points.

This course embraces general methods of compounding pills, troches, bacilli, emulsions, ointments, suppositories and the simpler types of prescriptions. It includes theoretical instruction

and training in practical work. The habits of neatness and, above all, of accuracy acquired by the students is of direct and immediate advantage to them in rendering their services more valuable.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*, *U. S. Pharmacopœia* and *National Formulary*.

Pharmacy 10—Dispensing pharmacy laboratory (Freshman University Class). Laboratory course, 5 hours, Recitation 1 hour, 16 weeks beginning January 28, 1930. Professor CARTER and instructors. 3½ points.

The work of the dispensing pharmacy laboratory course for the freshman University Class is identical with that outlined under course 8 for the first-year College Class, with an additional two hours of laboratory work.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*, *U. S. Pharmacopœia* and *National Formulary*.

Pharmacy 51-52—Theoretical pharmacy (including pharmaceutical Latin) (second-year College and University Classes). Lectures, 2 hours, Recitation 1 hour. Professors WIMMER, DORFMAN and instructors. 6 points.

During the first semester of this course, one hour weekly is devoted to the general methods of manufacturing liquid, solid and semi-solid pharmaceutical preparations. The general principles involved in the manufacture of fluidextracts, tinctures, syrups, elixirs, masses, pills, etc. are studied in detail. The other hour of lecture is given over to pharmaceutical Latin, when principles of etymology, construction of sentences and grammar, necessary to an intelligent understanding of Latin used in prescriptions, are studied.

During the second semester, the study of the solid and semi-solid preparations of the United States Pharmacopœia and National Formulary is begun and completed.

Textbooks: *U. S. Pharmacopœia X*, *National Formulary V*, Sturmer, *Pharmaceutical Latin*.

Pharmacy 55—Dispensing pharmacy laboratory (second-year College Class). Laboratory course, 3 hours, Recitation 1 hour, 16 weeks beginning September 23, 1929. Professors BROWN, DORFMAN and instructors. 2½ points.

The work in the dispensing pharmacy laboratory is a continuation of the work of the first year. It deals more especially with prescriptions and includes the compounding and dispensing of the various types requiring technical knowledge and skill. Consideration is given to tablet triturates, mucilages, mixtures, the filling of capsules, cachets, collapsible tubes, etc. General instruction is given in the reading and interpretation of prescriptions, the recognition of the various constituents, of their ingredients, together with the proper methods and manner of dispensing them.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, "*The Art of Compounding*," *U. S. Pharmacopœia* and *National Formulary*.

Pharmacy 57—Dispensing pharmacy laboratory (Sophomore University Class). Laboratory course, 7 hours, Recitation 1 hour, 16 weeks beginning September 23, 1929. Professors BROWN, CARTER and instructors. 4½ points.

The work of this course is divided into two laboratory periods, one of three hours which covers all of the work as outlined under course 55 of the second-year College Class, and one of four hours consisting of the compounding and dispensing of classes of preparations such as mixtures, draughts, lotions, solutions, emulsions, confections and jellies, pills, boli, dragees, lozenges, pastilles, lamels and orbicules, compressed tablets, powders, cachets, suppositories, pessaries and ointments, etc.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, "*The Art of Compounding*," *U. S. Pharmacopœia* and *National Formulary*.

Pharmacy 54—Manufacturing pharmacy laboratory (second-year College and University Classes). Laboratory course, 3 hours, Recitation 1 hour, 16 weeks beginning January 27, 1930. Professors BROWN, CARTER, DORFMAN and instructors. 2½ points.

The work in the manufacturing pharmacy laboratory is a continuation of the work of the first year. In general consideration is here given to calcination, crystallization, solubility determinations, percentage solutions, the manufacture of tinctures, fluidextracts and extracts by percolation, and the preparation of various classes of galenicals, together with the manufacture of the more simple chemicals and chemical preparations.

Textbooks: Dickman and Wimmer, *Manufacturing Pharmacy Laboratory Notes* and *U. S. Pharmacopœia*.

Pharmacy 59-60—Commercial pharmacy and pharmaceutical jurisprudence (second-year College and University Classes). Lectures 1½ hours. Laboratories 1½ hours. 4½ points. Professor LASCOFF and Lecturer NEUSTAEDTER.

This course in commercial pharmacy is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug store, including the choice of location, the elements of business administration and store management, insurance, problems of retail merchandising, including the value of discounts, banking, principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will be devoted largely to the principles underlying the making and interpretation of these records.

The course develops the subject rapidly, devoting its time and emphasis to the foundational problems of accounting. It is built up along the lines and methods of modern accounting practice. The subject matter includes: theories of debit and credit; classification of accounts; underlying principles of various accounting records; business papers and documents used as the basis for first entry; simple problems of the balance sheet and income statement; single entry; controlling accounts; handling sales and purchases; safeguarding the cash; consignments, and related topics. Ample practice for students is provided. The work will be related to the modern pharmacy.

This course is also designed to familiarize the student with the general provisions of state and Federal laws governing the practice of pharmacy. Ordinances and regulations having local application only will likewise be studied.

Special attention will be given to the prohibition and anti-narcotic laws and regulations.

A knowledge of these laws and regulations is essential to the proper and safe conduct of a drug store or pharmacy.

Pharmacy 101-102—Theoretical pharmacy (third-year College Class). Lectures 2 hours, Recitation 1 hour. Professors WIMMER, BROWN and instructors. 6 points.

During the first semester, the study of the *U. S. Pharmacopœia* and *National Formulary* galenical preparations is continued and completed. Their methods of preparation are individually studied and the reasons for each step taken in their preparation are given. The second semester is devoted to the study of non-official important galenical, cosmetic and toilet preparations, as well as to the study of the pharmacy of individual substances used in prescriptions.

Textbooks: *U. S. Pharmacopœia*, *National Formulary V*, *American Pharmaceutical Association Recipe Book*.

Pharmacy 103-104—Theoretical dispensing pharmacy (third-year College Class). Lectures 1 hour, Recitation 1 hour. Professor WIMMER and instructors. 4 points.

This course is devoted in the main to the study of the problems encountered by the pharmacist in his prescription work. Prescriptions of all kinds, especially such as present some difficulties, are studied with the aid of lantern slides. The numerous incompatibilities of present-day prescription work are discussed, as well as ways of avoiding or overcoming them. The subject of Homeopathy receives the attention it deserves.

Textbooks: Scoville, *The Art of Compounding*; Ruddiman, *Incompatibilities*.

Pharmacy 107-108—Dispensing pharmacy laboratory (third-year College Class). Laboratory course, 4 hours. Professors BROWN, DORFMAN and instructors. 4 points.

The work in the dispensing pharmacy laboratory deals particularly with the various phases of prescription dispensing, such as checking, labeling, pricing and delivery, etc. The all-important subject of chemical, pharmaceutical and therapeutical incompatibilities is thoroughly studied. The continual introduction of new remedies renders the subject of prescription incompatibilities a never-ending study, and it is the aim of this course to qualify its graduates to keep pace with discovery.

Textbooks: Ruddiman, *Incompatibles in Prescriptions*; Diekman and Wimmer, *Pharmacy Notes*.

Pharmacy 105—Manufacturing pharmacy laboratory (third-year College Class). Laboratory course 16 weeks (two sections alternating) 6 hours. Professors BROWN, DORFMAN and instructors. 3 points.

The work of this course is a continuation of the work of the second year. Many inorganic and organic pharmaceutical preparations and salts are manufactured. In addition, galenicals and toilet preparations are compounded. Furthermore, the student will ascertain the identity of various chemicals and galenicals.

Textbooks: *Pharmacopœia of the United States*, *National Formulary*, *National Dispensatory*; Diekman and Wimmer, *Pharmacy Notes*.

Pharmacy 106—Same as Pharmacy 105, but given during second half of year.

Pharmacy 115-116—Business pharmacy (third-year College Class). Lectures 1½ hours, Laboratory 1½ hours. Professor LASCOFF, Lecturer NEUSTAEDTER and visiting lecturers. 4½ points.

This course will consist of a more detailed development of *Pharmacy 59-60*. The lectures will be on practical subjects, handled in a manner which will further prepare the student for his requirements as a business man.

Lectures by practical business men will be a feature of the course. This series of lectures will give the student the principles of merchandizing from a business man's viewpoint rather than that of the pedagogue. These lectures, as well as those of the regular course are aimed to give the student a better understanding of contemporary business problems.

An additional series of lectures in pharmaceutical jurisprudence is included in this course.

Pharmacy 109-110—Theoretical pharmacy (third-year University Class). Lecture 2 hours, Recitation 1 hour. Professors WIMMER, CARTER and instructors. 6 points.

Same as 3rd College.

Pharmacy 111—Practical pharmacy—manufacturing pharmacy laboratory (third-year University Class). Laboratory 12 hours per week for 12 weeks beginning September 23, 1929. Professor CARTER and instructors. 5 points.

This course includes the manufacture of a number of the more difficult Pharmacopœial and National Formulary preparations, as well as of inorganic and organic medicinal remedies. The work is intended to qualify students for positions in pharmaceutical manufacturing establishments.

Textbook: Wimmer, *Manufacturing Pharmacy Notes*.

Pharmacy 113—Practical dispensing pharmacy (third-year University Class). Laboratory 3 hours per week for 10 weeks beginning September 23, 1929. Professor CARTER and instructors. 2 points.

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This course embraces a thorough study of the various types of incompatibilities. A large number of prescriptions are compounded which illustrate how some incompatibilities may be avoided or overcome.

Textbooks: Diekman and Wimmer, *Incompatibilities*; Ruddiman, *Incompatibilities in Prescriptions*.

Pharmacy 151-152—Advanced pharmacy (fourth-year University Class). Lecture 1½ hours. Professor WIMMER. 3 points.

This course is devoted to a detailed study of pharmaceutical, chemical and biological assay methods of vegetable and animal drugs, as well as of methods for their identification. It includes the newer methods employed, such as the standardization of tannin-containing drugs by the agglutination test, of saponin-containing drugs by the determination of their haemolytic indices, etc.

A portion of the lecture course is devoted to a study of essential oils, while especial emphasis is laid upon official oils. Those of importance in the essential oil industry are included.

In a series of seminars, students are required to prepare and present before the professors and instructors in the department, papers on current topics of interest pertaining to pharmaceutical and allied sciences.

Textbooks: Fuller's *Analysis of Drugs and Medicines*; U. S. Pharmacopœia; National Formulary V; Gildemeister and Hoffman, *The Volatile Oils*.

Pharmacy 153-154—Pharmaceutical assaying (fourth-year University Class). 8 weeks beginning January 27, 1930. Laboratory, 7 hours. Professors WIMMER, CARTER and instructors. 7 points.

This course is intended to prepare the student for work as a drug analyst. The entire class carries out a proximate analysis of a vegetable drug. Individual problems in assay work of the most varied and difficult kind are assigned and the student is, to a considerable extent, left to his own resources. The work embraces assays of galenicals, flavoring extracts, toilet preparations, cosmetics, medicinal gauzes, etc.

Textbooks: Fuller's *Analysis of Drugs and Medicines*; Nelson's *Introduction to the Analysis of Drugs and Medicines*; *Current Literature*.

Chemistry 155-156—Biological chemistry (for University Seniors). Lectures 1 hour, 2 points. Dr. KARSHAN.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

Chemistry 157-158—Chemical and general bibliography (for University Seniors). Lectures and conferences, 1 hour, 2 points. Professors ARNY and KASSNER.

This course will consist of lectures on the source books of chemistry, pharmacy, botany and cognate sciences and on the periodical literature on the same subjects. At the conferences, special themes will be assigned to each student for research during spare hours.

Coll. 1-2—English (for University Freshmen). Lectures and recitations, 3 hours, 6 points. Lecturer MCJIMSEY.

This is the Columbia College Course "A1-A2, in English Composition and Literature," required of all freshmen at that College.

Coll. 3-4—American government (for University Freshmen). Lectures and recitations, 3 hours, 6 points. Lecturer MCJIMSEY.

This is the Columbia College Course *Government 1-2—American Government*. It constitutes a general survey of the most persistent problems of American government—national, state, and

local—considering problems of political organization in the first semester, and problems of administrative organization and personnel, and those related to the functions of finance, justice, the relation of government to economic life, and foreign relations in the second semester.

Coll. 51-52—German (for University Sophomores). Lectures and recitations, 5 hours, 10 points. Lecturer INGENHUETT.

This is an introductory course in German.

Coll. 101-102—Mathematics (for University Juniors). 5 points. Lecturer McJIMSEY.

This course comprises the Columbia College Course *Mathematics A1, Trigonometry and A6r, Solid Geometry*.

SUMMER LABORATORY COURSES

These courses are designed to assist students who have failed at the spring examinations to prepare for those of the fall, and to provide instruction for special students in the use of the microscope, in the examination of drugs and in pharmaceutical processes.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

LABORATORY COURSES 1929

First- and Second-Year Classes

June 10 to June 29—Department of Chemistry.

July 1 to July 20—Department of Materia Medica.

July 22 to August 10—Department of Pharmacy.

Third-Year Classes

June 10 to July 15—Department of Chemistry.

July 8 to July 30—Department of Materia Medica.

July 22 to August 19—Department of Pharmacy.

(Five days of seven hours each week)

SUMMER LABORATORY COURSES 1930

First-, Second- and Third-Year College Classes

June 9 to June 28—Department of Chemistry.

June 30 to July 19—Department of Materia Medica.

July 21 to August 9—Department of Pharmacy.

UNIVERSITY CLASSES

University students failing in laboratory courses will be advised by the Registrar regarding the summer laboratory schedules.

EVENING COURSES

These courses of instruction, although they cannot be substituted for any of our regular work leading to degrees, have proven of great benefit to those who cannot attend during the day, and to those who desire to pursue special courses of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes.

Candidates may be admitted at any time during the course, at the discretion of the director of the course, but only those who have attended at least 80 per cent of all exercises and who pursue the courses for which they are registered in a satisfactory manner, will receive certificates.

The courses are offered on Monday, Tuesday and Friday of each week during the periods from Monday, October 7th, 1929 to January 17th, 1930 and from January 20, 1930 to Friday, May 9, 1930.

The Registrar's office will be open daily for registration from 10 a. m. to 4 p. m. and on Monday, Tuesday and Friday evenings from 7 to 8 o'clock, during the first two weeks of each semester.

Fees are payable in advance and are not returnable. A registration fee of \$6.00 is required of each student in addition to the fees stated below.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

The following courses are offered:

CHEMISTRY

E. Chm. 1-2—Pharmaceutical qualitative analysis. 1 hour classroom and 2 hours laboratory each week. Fee \$25 each semester. Professor SCHAEFER and Mr. JAYNE.

7:30-10:30 p. m., Friday.

Lecture, 7:30-8:20 p. m.

Laboratory, 8:30-10:30 p. m.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Deposit for breakage, \$10.

E. Chm. 3-4—Pharmaceutical qualitative analysis. 1 hour classroom and 2 hours laboratory work each week. Fee \$25 each semester. Professor SCHAEFER and Mr. JAYNE.

7-10 p. m., Friday.

Laboratory, 7-9 p. m.

Lecture, 9:10-10 p. m.

This course is a continuation of *E. Chm. 1-2* with particular reference to the U. S. P. tests for acid-ions. (Conditional on the enrollment of ten students.)

Fee for breakage \$10.

E. Chm. 5-6—Pharmaceutical volumetric analysis. 1 hour classroom and 2 hours laboratory work. Fee \$25 each semester. Professor SCHAEFER and Mr. JAYNE.

7-10:30 p. m., Friday.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Deposit for breakage, \$10.

E. Chm. 7—Examination of urine. First semester, 1 hour lecture and 2 hours laboratory work. Fee \$25. Professor SCHAEFER and Mr. JAYNE.

7:15-10:30 p. m., Friday.

Lecture, 7:20-8:20 p. m., Friday.

Laboratory, 8:30-10:30 p. m., Friday.

It should be noted that to qualify for "Director" of a laboratory, as defined by the Board of Health of the City of New York, a degree at least the equivalent of a B.S., is required.

In this course the qualitative and quantitative chemical tests of normal and pathological urine are studied; also the preparation and standardization of the necessary reagents. (Conditional upon the enrollment of twenty students.)

Deposit for breakage, \$10.

E. Chm. 8—Examination of urine. Second semester 1½ hours lecture and 2 hours laboratory work. Fee \$25. Professor SCHAEFER and Mr. JAYNE.

7:30-10 p. m., Friday.

Lecture, 7:30-8 p. m., Friday.

Laboratory, 8:20-10 p. m., Friday.

In this course, a continuation of *E. Chm. 7*, the gravimetric, polariscopic, colorimetric and microscopic examination of urine is studied. (Conditional upon the enrollment of twenty students.)

Deposit for breakage, \$10.

E. Chm. 9-10—Newer remedies. 1 hour lecture each week throughout the year. Fee \$30. Professor SCHAEFER.

8:30-9:30 p. m., Friday.

The aim of this course is to give the graduate pharmacist an opportunity to become familiar with the chemistry of many "recent" remedies generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given. (Conditional on enrollment of twenty students.)

Pharmacy

E. Phr. 1-2—Manufacturing pharmacy. 1½ hours lectures and 1½ hours laboratory work each week. Fee \$35 each semester. Professor BROWN and assistants.

7:30-10:30 p. m., Tuesday.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail. (Conditional upon the enrollment of ten students.)

E. Phr. 3-4—Manufacture of cosmetics and toilet preparations. 1 hour lecture and 2 hours laboratory work each week. Fee \$35 each semester. Professor WIMMER and assistants.

7:30-10:30 p. m., Tuesday. Main lecture room, Pharmacy.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face powders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured. (Conditional upon the enrollment of ten students.)

A summary of the lecture topics will be furnished upon request.

E. Phr. 5-6—Perfume materials and perfumery. 1 hour lecture and 2 hours laboratory work each week. Fee, \$50 each semester. Professor WIMMER and assistants.

7 p. m., Monday. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprise the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included. The second semester consists mainly of practical work.

A summary of the course will be mailed upon request. (Conditional on the enrollment of ten students.)

E. Phr. 7-8—Ampuls and medicated units. 1 hour lecture each week. Fee \$30 entire course. Professor CARTER.

7:30-8:30 p. m., Friday.

This course provides for the graduate pharmacist a thorough training in the principles of ampul medication both from the theoretical and practical viewpoints. Briefly, it considers the history, the advantages of parenteral administration, the forms and sizes of ampuls of American and foreign makes, together with the actual demonstration of ampul manufacture including glass blowing, filling, sealing, sterilization, etc. The N. F. ampuls and products of various manufacturers are exhibited and discussed in detail paying strict attention to methods of packaging, storing and dispensing. (Conditional upon the enrollment of twenty students.)

BACTERIOLOGY

E. MM. 1-2—Principles and practice of bacteriology. 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester, \$10 breakage deposit. Professor HART and assistants.

7-10 p. m., Tuesday. Lectures, 7-8 p. m. Room 42, Pharmacy.

Laboratory, 8-10 p. m.

This course includes the bacterial examination of sputum, excreta, water, air, milk and ice.

Special attention is given to the standard methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology and staining properties leading to the identification of the more common pathogenic bacteria. (Conditional on the enrollment of ten students.)

BLOOD ANALYSIS

E. MM. 3-4—1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester, \$10 breakage deposit. Professor H. TAUB and assistants.

7-10 p. m., Monday. Lecture, 7-8 p. m.

Laboratory, 8-10 p. m.

First semester: Preparation and study of blood smears in health and disease; total and differential counts; special pathology.

Second semester: Blood chemistry, including non-protein and urea nitrogen determinations, sugar, creatinin, uric acid, CO₂—combining power, chlorides, calcium, cholesterol, and other constituents; hemoglobin estimation, coagulation time; establishing and operating a laboratory. (Conditional on the enrollment of ten students.)

E. MM. 6—Parasitology. 1 hour lecture and 2 hours laboratory work each week, second semester. Fee \$40, \$10 breakage deposit. Professor HART and assistants.

7–10 p. m., Tuesday.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods. (Conditional on the enrollment of 10 students.)

E. MM. 7–8—Microbiology. 1 hour of lecture and demonstration each week throughout the year. Fee \$30. Professor HART.

7:30–8:30 p. m., Monday.

This course includes the methods of manufacture, standardization, administration and dosage of the commercial biological and bacteriological products and derivatives. Consideration is likewise given to the various methods of sterilization and disinfection as well as the principles of serology and immunology. (Conditional on enrollment of twenty students.)

E. MM. 9–10—Pharmaceutical sundries. 1 hour lecture each week throughout the year. Fee \$30. Professor BALLARD.

8:30–9:30 p. m., Monday.

While the retail pharmacist handles many items which are included under the general heading of sick-room supplies, he generally has little opportunity for systematic study of these articles and this is particularly true under present-day conditions. The object of this course of lectures is to acquaint him with the manufacture, differences and applications of bandaging and dressing materials, rubber sundries, glass and metal appliances, sutures and ligatures and the miscellaneous articles stocked in the average retail pharmacy and intended for physician's or household use. The complicated and specialized types of surgical instruments and appliances will not be considered. (Conditional on enrollment of twenty students.)

THE ALUMNI ASSOCIATION OF THE COLLEGE OF
PHARMACY OF THE CITY OF NEW YORK

OFFICERS AND COMMITTEES, 1929-1930

President

FREDERICK D. LASCOFF

Honorary President

ADOLPH HENNING

Vice-Presidents

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H. H. SCHAEFER

RUDOLPH HAUCK

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V. K. COMMONS, 1932.

LEWIS N. BROWN, 1931.

MAY O'C. DAVIS, 1932.

F. J. POKORNY, 1932.

Committee on Papers and Queries

C. P. WIMMER

ADOLPH HENNING

JOHN H. HECKER

Delegates to the American Pharmaceutical Association

GEO. C. DIEKMAN

C. P. WIMMER

ADOLPH HENNING

Delegates to the New York State Pharmaceutical Association

CHARLES W. BALLARD

HUGO H. SCHAEFER

VITO CALCAGNO

Delegates to the New Jersey Pharmaceutical Association

HAROLD McADAMS

CHARLES W. HOLTON

HARRY E. BISCHOFF

Delegates to the Connecticut Pharmaceutical Association

CURT P. WIMMER

HAROLD LEVY

FRANK V. DAMTOFT

ENDOWMENTS

For one hundred consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and trustees. At various times financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this *Announcement*, in addition to the regular course of two years, leading to the degree of Ph.G., the College now provides a regular course of three years, leading to the degree of Ph.Ch., with an additional year of optional work, leading to the degree of B.S. in Pharmacy.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the College.

Since the actual instruction work of the College calls for the expenditures of our entire income received from students' fees, it follows that we are compelled, like other schools, to seek other sources of income for meeting unusual expenses.

Under the stress of immediate necessity, we have recently completed and occupied an extension to our former building, costing approximately \$300,000. This work was undertaken in the belief that the necessary amount would be contributed by the alumni and friends of the College. Up to the present time, only about one half of the amount has been subscribed, and we present a special appeal for contributions to this cause.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

LIBRARY MAINTENANCE

The library facilities required by men engaged in advanced studies are necessarily much more extensive than those now provided by the College. The re-

search work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.

APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to \$10,000 would admirably meet this demand.

MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or materia medica museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum proper comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the city and Federal departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquiries could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an encyclopedic knowledge of the subject, and qualified to pursue original researches. Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

ADDITIONAL PROFESSORSHIPS

The establishment of a number of lecture courses to be served by specialists in their respective subjects is an essential requisite in the work of the final years of an advanced course. Perhaps the most important of such subjects is the history of chemistry and pharmacy. The provision of even a short series of lectures would do much to point the way to investigation in the light of former achievement.

Those desiring to contribute toward any of the purposes named, or others in which they may be interested, will upon request be supplied with a form which may be used for the purpose.

REGISTER OF GRADUATES

BACHELORS OF SCIENCE, JUNE 6, 1928

Cody, Catherine Elizabeth
94 Main Street, New Canaan, Conn.
Durfee, Olive
17 West 121st Street, New York, N. Y.
Goldberg, Samuel
213-15 Seigel Street, Brooklyn, N. Y.
Kennedy, Margaret H. Cambridge, N. Y.
Kitts, Edward Angermire
Richfield Springs, N. Y.
MacSata, William J.
540 West 189th Street, New York, N. Y.
(6)

PHARMACEUTICAL CHEMISTS, JUNE 6, 1928

Abramowitz, Abraham
60 East 3rd Street, New York, N. Y.
Achilson, Peter Lazarus
2380 Eighth Avenue, New York, N. Y.
Adler, Alan
1761-48th Street, Brooklyn, N. Y.
Becker, Herbert Chester
777 Woodward Avenue, Brooklyn, N. Y.
Beckerman, Sidney
1697 Lexington Avenue, New York, N. Y.
Burch, Egbert Alfred
St. Georges, Bermuda
Cohen, George
551 Boulevard, Bayonne, N. J.
Cohen, Morris
77 Madison Street, New York, N. Y.
Cohen, Samuel
2212 Surf Avenue, Brooklyn, N. Y.
Dick, Lester Colby
98 Division Street, Keyport, N. J.
Drucker, David Morris
249 Broome Street, New York, N. Y.
Dubinsky, Isidore
133 Herzl Street, Brooklyn, N. Y.
Einhorn, Charles
180 Riverdale Avenue, Brooklyn, N. Y.
Eisenberg, Joseph
592 West Side Avenue, Jersey City, N. J.
Epstein, George
105 Nott Avenue, Long Island City, N. Y.
Fanelli, Dominick
547 Fourth Avenue, Brooklyn, N. Y.
Giordano, Herman
376 Frankfort Street, Orange, N. J.
Giovannelli, Dominic Louis
1263 Herkimer Street, Brooklyn, N. Y.
Givens, Horace T. F.
6 Cottage Place, Freehold, N. J.

Goldberg, Max
1368 Myrtle Avenue, Brooklyn, N. Y.
Golden, Jonas
11a Louis Place, Brooklyn, N. Y.
Goldman, Harry
474 Warwick Street, Brooklyn, N. Y.
Grebel, Pincus
417 Grand Street, New York, N. Y.
Gregorius, Ruth Anna
301 Central Avenue, Lawrence, L. I.
Gross, Samuel
424 East 5th Street, New York, N. Y.
Gussow, Charles
1745 Eastburn Avenue, New York, N. Y.
Herman, Milton
1464 Seabury Place, New York, N. Y.
Horin, Maynard
69 Carl Street, Jamaica, N. Y.
Horowitz, Simon
127 East Broadway, New York, N. Y.
Hurwitz, Morris Herman
24 Ashford Street, Hartford, Conn.
Johnson, Cornelius Lee
828 Corgie Street, Cape May, N. J.
Kantrowitz, Israel
195 Madison Street, New York, N. Y.
Kaplan, Frances Mildred Sharon Valley, Conn.
Katz, Sidney
211 East 105th Street, New York, N. Y.
Kibbe, August Geissel
162 Egbert Avenue, West New Brighton,
S. I.
La Macchia, Mildred Mary
162 Day Street, New Haven, Conn.
Lauri, Victor
210 De Graw Street, Brooklyn, N. Y.
Lebensart, Manning
246 West 25th Street, New York, N. Y.
Leibowitz, Max E.
348 Jefferson Avenue, Brooklyn, N. Y.
Levinsohn, Arthur
26 South Bridge Street, Poughkeepsie, N. Y.
Levy, Gussie Florence
512-36th Street, Town of Union, N. J.
Lippe, Abraham Alfred
540 Jerome Street, Brooklyn, N. Y.
Malinoff, Elias
1324 College Avenue, New York, N. Y.
Metlitz, Henry Nanuet, N. Y.
Michaels, Jacob
1433 Bryant Avenue, New York, N. Y.
Miller, Isidore H.
337 Ridge Avenue, Lakewood, N. J.
Neuman, Harry
215 Lawrence Place, Paterson, N. J.

- Palmera, Jerome J.
274 Third Street, Jersey City, N. J.
- Porte, Solomon
2054-63rd Street, Brooklyn, N. Y.
- Pucci, Guido
1233 Third Avenue, Woodcliff, N. J.
- Rifkin, Isidor
2026 Douglass Street, Brooklyn, N. Y.
- Rocker, Philip
120 East 2nd Street, New York, N. Y.
- Saldinger, Karl
554 De Kalb Avenue, Brooklyn, N. Y.
- Schimmel, Moses
1315 Brighton Beach Avenue, Brooklyn, N. Y.
- Schmilowitz, Samuel Arthur
170-23 171st Street, Jamaica, N. Y.
- Schultz, Joseph
990 Aldus Street, New York, N. Y.
- Schwartz, Max
1629 Lexington Avenue, New York, N. Y.
- Scowcroft, Ronald
582 Craig Avenue, Tottenville, N. Y.
- Seng, John Warren
107 Carroll Place, New Brunswick, N. J.
- Shapiro, Harry
176 Riverdale Avenue, Brooklyn, N. Y.
- Simon, Isidore Merenholz
366 Hamilton Avenue, Paterson, N. J.
- Simone, Catharine Bellina
Croton-on-Hudson, N. Y.
- Sobel, Joseph
194 East Main Street, Bridgeport, Conn.
- Stauber, Robert August
R. D. No. 15 Groton, N. Y.
- Steinberg, Abraham
620 Riverdale Avenue, Brooklyn, N. Y.
- Thierer, Lionel L.
1189 Sheridan Avenue, New York, N. Y.
- Tiesler, Adolph E.
93 Rebecca Avenue, Pleasantville, N. Y.
- Topilow, Jacob
155 West 29th Street, Bayonne, N. J.
- Tuchband, Louis
Arlington Avenue, Bergenfield, N. J.
- Weisman, Isadore
37 Kingsbury Street, Waterbury, Conn.
- Weiss, Harry
1447 Longfellow Avenue, New York, N. Y.
- Zabner, Jacob Samuel
876 Lake View Road, Cleveland, Ohio
- Zalowitz, Morris D.
419 Washington Avenue, Elizabeth, N. J.
- (73)
- GRADUATES IN PHARMACY, MAY 31, 1928
- Abramoff, Adolph
221 East 66th Street, New York, N. Y.
- Adler, Solomon
779 East 6th Street, New York, N. Y.
- Amazon, Maxwell
1447 Ocean Parkway, Brooklyn, N. Y.
- Amster, Herman Charles
693 Monroe Street, Brooklyn, N. Y.
- Appelbaum, Gershon
1745 Fulton Avenue, New York, N. Y.
- Aronowitz, Louis
221 East 66th Street, New York, N. Y.
- Atkin, Nathan
155 Audubon Avenue, New York, N. Y.
- Avirom, Morris
358 Hart Street, Brooklyn, N. Y.
- Baizer, Louis
1278 Union Avenue, Apt. 102, New York, N. Y.
- Balaban, Mrs. Chaiah Eisenberg
333 Sheffield Avenue, Brooklyn, N. Y.
- Beck, Samuel
140 Trenton Avenue, White Plains, N. Y.
- Becker, Harry
2112 Harrison Avenue, New York, N. Y.
- Becker, Joseph George
25-35 Blake Avenue, Brooklyn, N. Y.
- Beeber, Joseph
134 Clymer Street, Brooklyn, N. Y.
- Bennett, Benjamin Herman
233 South Second Street, Brooklyn, N. Y.
- Bergman, Israel
115 St. Marks Place, New York, N. Y.
- Berkowitz, Bernard
64 Wadsworth Terrace, New York, N. Y.
- Berkowitz, Simon
92 Rivington Street, New York, N. Y.
- Berman, Louis Leo
566 Beck Street, New York, N. Y.
- Bernstein, Charles Leo
216 East 6th Street, New York, N. Y.
- Bernstein, Jesse L.
1233 Simpson Street, New York, N. Y.
- Berson, Joseph
651 Marcy Avenue, Brooklyn, N. Y.
- Biller, Moses Leon
264 Penn Street, Brooklyn, N. Y.
- Bode, Emma
120 French Street, New Brunswick, N. J.
- Bolker, Abraham
1926 Pacific Street, Brooklyn, N. Y.
- Botti, Nicholas Albert
509 Greenwood Avenue, Brooklyn, N. Y.
- Boxer, Hyman
1709 Bathgate Avenue, New York, N. Y.
- Boxer, Michael
1997 Hughes Avenue, New York, N. Y.
- Brensilver, David Isidore
920 Avenue St. John, New York, N. Y.
- Bronstein, Leo
201 Varet Street, Brooklyn, N. Y.
- Carneol, Herman
324 East 46th Street, Brooklyn, N. Y.

- Chaifetz, Morris
 49 Rutgers Street, New York, N. Y.
 Chait, Reuben
 352 West 117th Street, New York, N. Y.
 Charney, Abraham
 609 Autumn Avenue, Brooklyn, N. Y.
 Chase, Irving
 890 Fox Street, New York, N. Y.
 Chasnow, Martin
 890 Fox Street, New York, N. Y.
 Cheresch, Edward Julius
 374 South Second Street, Brooklyn, N. Y.
 Chudnowsky, David
 3009 Cooper Avenue, Glendale, N.Y.
 Chuisano, Pasquale Ermin
 34 Bennington Avenue, Freeport, N. Y.
 Cipriano, Robert M.
 512 Greene Avenue, Brooklyn, N.Y.
 Cody, Mary Rose
 94 Main Street, New Canaan, Conn.
 Cohen, Abraham
 216 East 56th Street, Brooklyn, N. Y.
 Cohen, Abraham
 647 Fox Street, New York, N. Y.
 Cohen, Harry Lewis
 611½ Calder Street, Harrisburg, Pa.
 Cohen, Milton
 2519 Clarendon Road, Brooklyn, N. Y.
 Cohen, Philip
 1532 Longfellow Avenue, New York, N. Y.
 Cohen, Sam
 69 Hinsdale Street, Brooklyn, N. Y.
 Cohen, Sigmund
 1549 46th Street, Brooklyn, N. Y.
 Cohen, Solomon
 108 Division Street, c/o Seitz, New York, N. Y.
 Crystal, Adam
 144 Ellery Street, Brooklyn, N. Y.
 David, Solomon
 117 South 4th Street, Brooklyn, N. Y.
 De Filippis, Americo Joseph
 2-B King Street, New York, N. Y.
 De Lalla, Carmelita Anne
 704 Bleecker Street, Utica, N. Y.
 Di Bella, Joseph Vincent
 157-17th Street, West New York, N. J.
 Dubinsky, Jack
 1566 St. Marks Avenue, Brooklyn, N. Y.
 Dubnick, Samuel
 1838 Park Place, Brooklyn, N. Y.
 Dwosky, Nathan
 62 West 124th Street, New York, N. Y.
 Eisenberg, Max
 1284 Amsterdam Avenue, Apt. 12, New York, N. Y.
 Eisler, Abraham Harry
 226 Hart Street, Brooklyn, N. Y.
 Elkowitz, Paul
 368 East 4th Street, New York, N. Y.
 Epstein, Aaron
 576 Chester Street, Brooklyn, N. Y.
 Epstein, Harry
 2920 West 29th Street, Brooklyn, N. Y.
 Errante, Frank Joseph
 389 Shepherd Avenue, Brooklyn, N. Y.
 Feuerstein, Abraham
 481 Warwick Street, Brooklyn, N. Y.
 Finkelstein, Morris
 1047 Avenue St. John, New York, N. Y.
 Fox, Jerry Abe
 879 Elsmere Place, New York, N. Y.
 Franzblau, Max
 2028 Gleason Avenue, Unionport, N. Y.
 Fried, Max B.
 39 Forest Avenue, West Englewood, N. J.
 Fried, Morris David
 164 Havemeyer Street, Brooklyn, N. Y.
 Friedman, Jacob
 89 Aldine Street, Newark, N. J.
 Friedman, Leonard
 105 Post Avenue, New York, N. Y.
 Friedman, Nathan Fisher
 615 West 162nd Street, New York, N. Y.
 Fuchs, Louis
 343 East 16th Street, New York, N. Y.
 Garfinkle, Arthur
 48 East 15th Street, Bayonne, N. J.
 Gargiulo, Dominick Francis
 1869 West 10th Street, Brooklyn, N. Y.
 Gilliar, Frank James
 53 Grace Avenue, Great Neck, N. Y.
 Gimbel, William Breitbart
 565 Cleveland Street, Brooklyn, N. Y.
 Glance, Abraham Louis
 853 East 170th Street, New York, N. Y.
 Glazer, Louis Alfred
 1325 Grant Avenue, New York, N. Y.
 Glick, Meyer
 215 East 4th Street, New York, N. Y.
 Goldberg, Nathan
 529 Hinsdale Street, Brooklyn, N. Y.
 Goldfarb, Harold
 1011 Belmont Avenue, Brooklyn, N. Y.
 Goldman, Hirsch Jacob
 200 Vernon Street, Brooklyn, N. Y.
 Goldman, Joseph
 447 Sheffield Avenue, Brooklyn, N. Y.
 Goozman, Max
 422 East 50th Street, New York, N. Y.
 Goran, Philip
 624 East 6th Street, New York, N. Y.
 Gorset, Abraham Frank
 175 Middleton Street, Brooklyn, N. Y.
 Greenberg, Samuel
 719 Sackman Street, Brooklyn, N. Y.

- Groopman, Harry
 548 Fox Street, New York, N. Y.
 Grossman, Max
 7 Bay 22nd Street, c/o Malin, Brooklyn,
 N. Y.
 Gullo, Nancy Veronica
 148 Hester Street, New York, N. Y.
 Halfin, Herman
 3420 Laronia Avenue, Cincinnati, Ohio.
 Halpert, Isidore
 1762-62nd Street, Brooklyn, N. Y.
 Heckman, Alexander
 1763 West 7th Street, Brooklyn, N. Y.
 Heller, Bella
 1379 Teller Avenue, New York, N. Y.
 Hirschman, Hyman
 16-18 East 107th Street, New York, N. Y.
 Hochstadt, Samuel
 508 Williams Avenue, Brooklyn, N. Y.
 Holmes, Herbert
 Cresskill, N. J.
 Howard, Charles Francis
 39 Dewey Avenue, Huntington, L. I.
 Isikowitz, Bernard Morris
 426 Snediker Avenue, Brooklyn, N. Y.
 Israel, Leon Harold
 319 Cherry Street, New York, N. Y.
 Itzkowitz, Harry
 1717-60th Street, Brooklyn, N. Y.
 Itzkowitz, Isidore
 602 Junius Street, Brooklyn, N. Y.
 Janiger, Phoebe
 47 West 112th Street, New York, N. Y.
 Kannry, Irving
 48 East 103rd Street, New York, N. Y.
 Kaplan, Julius
 1382 College Avenue, New York, N. Y.
 Katz, Aaron
 3802 Twelfth Avenue, Brooklyn, N. Y.
 Kerachsky, Isador
 Leonard Bridge, Conn.
 Keylin, Solomon
 1361 Intervale Avenue, New York, N. Y.
 Klinger, Bernard
 1382 St. Johns Place, Brooklyn, N. Y.
 Klinger, Sol
 689 Beck Street, New York, N. Y.
 Koch, Karl
 3540-89th Street, Jackson Heights, L. I.
 Komisaruk, William B.
 367 East 179th Street, New York, N. Y.
 Krause, William
 109 Myrtle Avenue, Port Jefferson, N. Y.
 Kreisel, Jacob
 373 Monroe Street, Brooklyn, N. Y.
 Kunitz, Edward A.
 1280 Walton Avenue, New York, N. Y.
 Kvaes, Daniel
 850 Beck Street, New York, N. Y.
 Lacovara, Vincent Anthony
 210 East 7th Street, Brooklyn, N. Y.
 Lager, Samuel
 2079 Mohegan Avenue, New York, N. Y.
 Langberg, Isidore
 1675 Park Place, Brooklyn, N. Y.
 Lazarowitz, Abraham
 557 Timpson Place, New York, N. Y.
 Lefrak, David
 1522 Webster Avenue, New York, N. Y.
 Leitner, Yetta
 1014 Eastern Parkway, Brooklyn, N. Y.
 Lennon, Mary Augusta
 Pawling, N. Y.
 Lev, Max
 419 West 115th Street, New York, N. Y.
 Levine, Esro
 1056 Kelly Street, New York, N. Y.
 Levine, Jesse
 Woodridge, N. Y.
 Levinson, Meyer Jacob
 584 East 137th Street, New York, N. Y.
 Lewis, David Kenneth
 290 West End Avenue, New York, N. Y.
 Lindeman, Henry Otto
 109-36 132nd Street, Richmond Hill, N. Y.
 Lo Presti, Frances
 60 Cedar Avenue, Long Branch, N. J.
 Lortz, Edgar Martin
 279 West Main Street, Ilion, N. Y.
 Luntz, Stanley
 1108 Clark on Avenue, Brooklyn, N. Y.
 Lyons, Roland Frederick
 Lake Placid, N. Y.
 McKaba, Arthur Essad
 134 State Street, Brooklyn, N. Y.
 Margotta, Anna Letitia
 169 Union Avenue, New Rochelle, N. Y.
 Martocci, Amedeo
 151 Bay 49th Street, Brooklyn, N. Y.
 Miceli, Anthony William
 784 Bushwick Avenue, Brooklyn, N. Y.
 Miller, Joseph
 98 Louisa Street, Brooklyn, N. Y.
 Miller, Mina
 717 Crotona Park North, New York, N. Y.
 Moskovitz, Jerome Louis
 231 Norman Street, Bridgeport, Conn.
 Mucelli, Gaetano J.
 288 Essex Street, Brooklyn, N. Y.
 Musso, Frank
 522 Ninth Street, Brooklyn, N. Y.
 Neveloff, Aaron
 46 Hoyt Street, Brooklyn, N. Y.
 Novins, Henry
 523 West 138th Street, New York, N. Y.
 Okrent, John
 2985 Ocean Parkway, Brooklyn, N. Y.
 Olenick, Jacob
 1046 Rutland Road, Brooklyn, N. Y.
 Ornstrat, Leon
 77 West 181st Street, New York, N. Y.
 Orso, Anthony
 R. F. D. No. 2, Hempstead, N. Y.

- Oxman, William
365 Dumont Avenue, Brooklyn, N. Y.
- Padow, Meyer
1318 Avenue J, Brooklyn, N. J.
- Pagano, Dominick
128 East Broadway, New York, N. Y.
- Palen, Richard Gilbert
44 Pauling Avenue, Cold Springs, N. Y.
- Paulonis, Edward Peter
1357 Bushwick Avenue, Brooklyn, N. Y.
- Pollack, Jacob Philip
1023 Lafayette Avenue, Brooklyn, N. Y.
- Pollack, Lawrence
1556 Hoe Avenue, c/o Salop, New York, N. Y.
- Pollack, Sam
310 East 4th Street, New York, N. Y.
- Pomerantz, Nathan Joseph
1637-44th Street, Brooklyn, N. Y.
- Porgoman, Lena
205 St. Pauls Avenue, Jersey City, N. J.
- Pumo, Anthony
165 Bleecker Street, Brooklyn, N. Y.
- Rabinowitz, Samuel
445 Rockaway Parkway, Brooklyn, N. Y.
- Rader, Dora Lillian
957 Fox Street, New York, N. Y.
- Raia, Emanuel
1396 Herkimer Street, Brooklyn, N. Y.
- Reifman, Isaac
1395 Bristow Street, New York, N. Y.
- Reiss, William
1061 Trinity Avenue, New York, N. Y.
- Reiter, Morris
156 Avenue C, New York, N. Y.
- Rich, Patsy
21 Evergreen Avenue, Rye, N. Y.
- Richert, Edward Vincent
Jericho Turnpike & Ingraham Lane, New Hyde Park, L. I.
- Rinaldi, Charles
1362-64th Street, Brooklyn, N. Y.
- Rosen, Julius
28 Warren Street, Ellenville, N. Y.
- Rosenberg, Harry Oscar
123 Rockaway Parkway, Brooklyn, N. Y.
- Rosenthaler, Malvin
202-16th Street, College Point, N. Y.
- Rossi, James
302 Chauncey Street, Brooklyn, N. Y.
- Rothenberg, David
370 Hinsdale Street, c/o Shapiro, Brooklyn, N. Y.
- Rothfeld, Emanuel
35 East 110th Street, New York, N. Y.
- Sabella, Vincenza Jeanne
6023-17th Avenue, Brooklyn, N. Y.
- Sahr, Sydney
3442-62nd Street, Woodside, N. Y.
- Salerno, Anthony Rocco
229 East 5th Street, New York, N. Y.
- Samuels, George
1526 Lincoln Place, Brooklyn, N. Y.
- Santagada, Francis Paul
193 Broadway, Newburgh, N. Y.
- Sarawaisky, Isadore
20 Bergen Place, Jamaica, N. Y.
- Satz, Lola
16 East 106th Street, New York, N. Y.
- Schames, Louis
470 Miller Avenue, Brooklyn, N. Y.
- Schechner, Louis
1223 55th Street, Brooklyn, N. Y.
- Schlosberg, Nathan
4 East 108th Street, New York, N. Y.
- Schmitt, Frederick Ernst
15 Rochester Avenue, Brooklyn, N. Y.
- Schneider, Milton Solomon
1059 First Avenue, New York, N. Y.
- Schrage, Joseph
1568 Macomb's Road, New York, N. Y.
- Schuker, Litman Halbert
362 Grand Street, Brooklyn, N. Y.
- Schultz, George
306 East 73rd Street, New York, N. Y.
- Segal, Benjamin
8705 Bay Parkway, Brooklyn, N. Y.
- Serote, Nathan
68 Garden Street, Poughkeepsie, N. Y.
- Setaro, Rose Ann
2839 Fourth Avenue, Astoria, L. I.
- Shaffiet, Robert
7620 Rockaway Boulevard, Woodhaven, L. I.
- Shaftan, Charles S.
811 Walton Avenue, New York, N. Y.
- Shapiro, Arthur
312 East 8th Street, New York, N. Y.
- Shaw, Alex
731 Union Avenue, New York, N. Y.
- Sherman, Barney Bernard
16 Van Wyck Avenue, Jamaica, N. Y.
- Shucard, Morris
904 Stone Avenue, Brooklyn, N. Y.
- Sidelsky, Samuel
237 East 93rd Street, Brooklyn, N. Y.
- Siegel, Isidore
1910 Marmon Avenue, New York, N. Y.
- Siegel, Max
778 Driggs Avenue, Brooklyn, N. Y.
- Siegel, Morris
2017 Lafontaine Avenue, New York, N. Y.
- Sileo, Mario
1525-75th Street, Brooklyn, N. Y.
- Silver, Benjamin
1370 Lyman Place, New York, N. Y.
- Silverman, Jacob Ronald
136 W. 170th Street, New York, N. Y.

- Simeone, Nicholas Ferdinand
649 Main Street, North Bergen, N. J.
- Singer, Nathan
988 Simpson Street, c/o McAuliffe
New York, N. Y.
- Sirulnick, Raphael
2010 Ocean Avenue, Brooklyn, N. Y.
- Slavin, Isadore
141 Second Avenue, New York, N. Y.
- Slutsky, Benjamin
65 Norfolk Street, New York, N. Y.
- Smolowitz, Bernard
29 West 119th Street, New York, N. Y.
- Sorkenn, Ralph
307 West 3rd Street, Chester, Pa.
- Steinberg, Eva
2867 West 27th Street, Brooklyn, N. Y.
- Stillerman, Harry Louis
842 Sheepshead Bay Road, Brooklyn, N. Y.
- Stock, George Thomas
Pawling, N. Y.
- Stockvis, George G.
29 Ibis Street, Forest Hills, L. I.
- Strassberg, Sidney
544 St. Paul's Place, New York, N. Y.
- Sussman, Henry Nathan
1956 Crotona Parkway, New York, N. Y.
- Tabachnick, Max Joseph
178 Hooper Street, Brooklyn, N. Y.
- Talenbloom, Julius
220 Campbell Avenue, Revere, Mass.
- Tandlich, Henry
3124 Mermaid Avenue, Coney Island, N. Y.
- Tansky, David
810 Hunts Point Avenue, New York, N. Y.
- Tapola, Lucille Hylia
65 Wadsworth Terrace, New York, N. Y.
- Tekel, Benjamin
617 East 11th Street, New York, N. Y.
- Thimble, Rudolph Naprstek
40-10 24th Street, Long Island City, N. Y.
- Tobis, Abraham
832 Whitlock Avenue, New York, N. Y.
- Tolkoff, Paul Samuel
8 East 107th Street, New York, N. Y.
- Tuman, Robert
422 East 53rd Street, Brooklyn, N. Y.
- Turetsky, David
11817 Liberty Avenue, Richmond Hill, N. Y.
- Valentino, Louis Rudolph
74 President Street, Brooklyn, N. Y.
- Van Stone, Theodore Borden
350 Main Street, Hackensack, N. J.
- Veprovsky, Lawrence L.
1430 First Avenue, New York, N. Y.
- Verdrager, David
541 Flushing Avenue, Brooklyn, N. Y.
- Vitale, Leonida Pasquale
1637 68th Street, Brooklyn, N. Y.
- Vix, George
537 East 234th Street, c/o Wolff,
New York, N. Y.
- Vogel, Joseph
132-03 Cronston Avenue, Belle Harbor, N. Y.
- Waldinger, David
318 Rochester Avenue, Brooklyn, N. Y.
- Waterbury, Whitford Newton
1665 Grand Concourse, New York, N. Y.
- Weber, Roy A.
304 Sixth Street, West New York, N. J.
- Weinberg, Rubin
224 South Third Street, Brooklyn, N. Y.
- Weiner, Irving J.
152 West 176th Street, New York, N. Y.
- Weinstein, Isadore
860 Southern Boulevard, New York, N. Y.
- Weinstein, Milton
236 Clinton Street, New York, N. Y.
- Weiss, Alfred Schoen
641 Vanderbilt Avenue, Brooklyn, N. Y.
- Wieder, Irving Philip
2844 West 30th Street, Brooklyn, N. Y.
- Wolin, Louis
9600 Roosevelt Avenue, Corona, N. Y.
- Yanowitz, Irving
1515 45th Street, Brooklyn, N. Y.
- Yosepowitz, Joseph
1336 Brook Avenue, New York, N. Y.
- Yudcovich, Jack
700 East 161st Street, New York, N. Y.
- Zelenko, Alexander Disraeli
389 Beech Street, Teaneck, N. J.
- Zeltzer, Irving
553 Williams Avenue, Brooklyn, N. Y.
- Zirin, Benjamin
75 East 109th Street, New York, N. Y.
- (253)
- PHARMACEUTICAL CHEMISTS, OCTOBER 31, 1928
- Baiczer, Abraham Irving
1072 Union Avenue, New York, N. Y.
- Brooks, Vernon Hazen
25 Maple Place, Portchester, N. Y.
- Gattuso, Charles
22 Rivington Street, New York, N. Y.
- Katzowitz, Morris
333 Rodney Street, Brooklyn, N. Y.
- Klein, Samuel
1326-55th Street, Brooklyn, N. Y.
- Montemurro, Thomas
531-42nd Street, Union City, N. J.
- Rochelson, George
1416 Stebbins Avenue, New York, N. Y.
- Schutzbank, Victor
R. F. D. No. 3, Lakewood, N. J.

- Simon, Harry
28 Gouverneur Street, New York, N. Y.
- Spielman, Samuel
760 Manida Street, New York, N. Y.
(10)
- GRADUATES IN PHARMACY, OCTOBER 2, 1928
- Bikofsky, Louis
313 East 170th Street, New York, N. Y.
- Chasman, Solomon
132-17th Street, Brooklyn, N. Y.
- Daniel, Blueford Fowler
Hogansville, Ga.
- Dunst, Morris
1021-45th Street, Brooklyn, N. Y.
- Durst, Samuel Isidore
143 Stanton Street, New York, N. Y.
- Gilbert, Jacob Carlman
6 West 102nd Street, New York, N. Y.
- Gioia, Michael Angelo
1115 Avenue Z, Brooklyn, N. Y.
- Goldrad, Harry
1491 Brook Avenue, New York, N. Y.
- Goldstein, Samuel
89 Glenmore Avenue, Brooklyn, N. Y.
- Greenfarb, Hyman
1481 Eastern Parkway, Brooklyn, N. Y.
- Jacobowitz, Jacob
336 East 55th Street, Brooklyn, N. Y.
- Keller, Joseph
3258-25th Street, Jackson Heights, N. Y.
- Lehrer, Arthur Martin
1369 East 29th Street, Brooklyn, N. Y.
- Longano, Carmine
554 Lorimer Street, Brooklyn, N. Y.
- McGraw, Harvey Benedict
34 Tompkins Street, Cortland, N. Y.
- Manson, Abraham
63 Columbia Street, New York, N. Y.
- Picheny, Bernard
213 Clinton Street, New York, N. Y.
- Pierson, Sanford Ralph
28 South Main Street, Liberty, N. Y.
- Polizzi, Fred Edmund
230 East 114th Street, New York, N. Y.
- Rosati, John Vincent
9125-86th Street, Woodhaven, N. Y.
- Sanders, Bernard
7426 Seventh Avenue, Brooklyn, N. Y.
- Schein, Henry
244 Roebling Street, Brooklyn, N. Y.
- Smith, Edward Joseph
1303 Brighton Beach Avenue, Brooklyn, N. Y.
- Sorin, Mae
2166 Eighth Avenue, New York, N. Y.
- Speller, Clarence William
22 Wyandotte Avenue, Highland Falls, N. Y.
(25)

REGISTER OF STUDENTS, SESSION OF 1928-1929

GRADUATE UNIVERSITY CLASS

- Kennedy, Margaret
(1) Cambridge, N. Y.

SENIOR UNIVERSITY CLASS

- Bevacqua, Alfred
375 Baldwin Avenue, Jersey City, N. J.
- Brooks, Vernon H.
25 Maple Place, Port Chester, N. Y.
- Dick, Lester C.
98 Division Street, Keyport, N. J.
- Givens, Horace T. F.
6 Cottage Place, Freehold, N. J.
- Lauri, Victor
210 Degraw Street, Brooklyn, N. Y.
- Lippe, A. Alfred
540 Jerome Street, Brooklyn, N. Y.
- Schultz, Joseph
990 Aldus Street, New York, N. Y.
- Seng, John W.
107 Carroll Place, New Brunswick, N. J.
- Simone, Catherine
Croton-on-Hudson, N. Y.
- Stauber, Robert A.
R. D. 15 Groton, New York, N. Y.

- Steinberg, Abraham
620 Riverdale Avenue, Brooklyn, N. Y.
- Tong, Young
(12) 1404 Liesetoavia Street, Honolulu, P. H.

JUNIOR UNIVERSITY CLASS

- Aaronson, Irving Bernard
100 Humboldt Street, Brooklyn, N. Y.
- Alderman, George J.
214 New Main Street, Yonkers, N. Y.
- Amatucci, Laura
1860-84th Street, Brooklyn, N. Y.
- Appelbaum, Joseph
147 Schenectady Avenue, Brooklyn, N. Y.
- Bauso, Felix
8315 Woodhaven Boulevard, Queens, L. I.,
N. Y.
- Beck, Louis
Cresskill, N. J.
- Berry, Isadore
76 Morgan Street, Springfield, Mass.
- Biberfeld, A. Louis
150-17th Street, West New York, N. J.
- Brown, Gustave H.
884 Riverside Drive, New York, N. Y.

- Bulda, Frank E.
262 Fifth Avenue, Astoria, L. I.
- Caniparoli, Olga
2529 Cambreleng Avenue, New York, N. Y.
- Carbonaro, John
2 McMaster Street, Auburn, N. Y.
- Carnot, E. J.
345 West 86th Street, New York, N. Y.
- Cherr, George
1703 Washington Avenue, New York, N. Y.
- Cohen, Irving S.
1121 Tinton Avenue, New York, N. Y. C.
- Costarella, Renato
5822-15 Avenue, Brooklyn, N. Y.
- Criscuolo, Andrew
792 Grand Avenue, New Haven, Conn.
- Davenport, Renald
Sweet Valley, Pa.
- Dayharsh, Carroll
105 Kensington Place, Syracuse, N. Y.
- Del Vecchio, Henry W.
1366-73rd Street, Brooklyn, N. Y.
- Edelstein, Victor H.
62 East 94th Street, New York City
- Edgars, Norman K.
85 Hillside Avenue, Tenafly, N. J.
- Ellena, Aldo J.
180 South Bergenline Avenue, Union City, N. J.
- Erdtrachter, Jules P.
229 Fifth Street, New York City
- Fabrikant, Lawrence
1986 Clinton Avenue, New York, N. Y.
- Falk, Herbert B.
709 East 24th Street, Paterson, N. J.
- Fishbein, Isadore L.
70 Carroll Street, Paterson, N. J.
- Fisher, Jennie
314 Bay 10th Street, Brooklyn, N. Y.
- Freedman, Ray Morris
7 West Glen Street, Glen Cove, N. Y.
- Fries, Harry
1049 East 13th Street, Brooklyn, N. Y.
- Ganeless, Percy
105 North Main Street, Liberty, N. Y.
- Gatov, Louis
1749 Grand Concourse, New York, N. Y.
- Gerken, Fred
133-08 Rockaway Boulevard, South Ozone Park, N. Y.
- Ginn, Barnett
126 East 7th Street, New York, N. Y.
- Glantz, Milton
355 Second Avenue, New York, N. Y.
- Glassman, Louis H.
101 Straight Street, Paterson, N. J.
- Glickfield, Peter J.
14 Cecil Avenue, Glen Cove, N. Y.
- Gorenberg, David
690 East 158th Street, New York, N. Y.
- Grasser, George J.
22 Florida Avenue, Arrochar, S. I.
- Greenfield, Joseph
222 East 124th Street, New York, N. Y.
- Groves, Reginald
415 Spooner Avenue, Plainfield, N. J.
- Gulker, Jacob H.
174 Clinton Street, New York, N. Y.
- Guss, I. E.
1425 Eastern Parkway, Brooklyn, N. Y.
- Hand, Quentin R.
2533 Seventh Avenue, New York, N. Y.
- Harrison, Ben
197 Floyd Street, Brooklyn, N. Y.
- Hoyte, Lewis P.
169 St. Nicholas Avenue, New York, N. Y.
- Ingegno, Henry P.
413-2nd Street, Brooklyn, N. Y.
- Iozzia, Theresa C.
127 Beech Street, Paterson, N. J.
- Ironson, Hyman
1265 Gerard Avenue, New York, N. Y.
- Isgar, William
95 Barrett Street, Brooklyn, N. Y.
- Jae, H. Y.
522 West 147th Street, New York, N. Y.
- James, Edith G.
588 Lenox Avenue, New York, N. Y.
- Kadish, Frank B.
21 South Dean Street, Englewood, N. J.
- Kaplan, Aaron
93 Granite Street, Brooklyn, N. Y.
- Kaplan, Herbert B.
185 Bergen Avenue, Jersey City, N. J.
- Kerner, Emanuel Matthew
1968-68th Street, Brooklyn, N. Y.
- Kolk, Martin I.
1550-50th Street, Brooklyn, N. Y.
- La Placa, Francis A.
316 Monroe Street, Hoboken, N. J.
- Levy, Alexander
556 Ashford Street, Brooklyn, N. Y.
- Levy, Julian
436 Eastern Parkway, Brooklyn, N. Y.
- Lipkowitz, Irving M.
690 Monroe Street, Brooklyn, N. Y.
- Lo Russo, Joseph F.
1883 West 13th Street, Brooklyn, N. Y.
- Lubin, Abraham A.
1314 Mulberry Street, Scranton, Pa.
- Malament, Louis
316 South Fourth Street, Brooklyn, N. Y.
- Mallon, Milton J.
372 Snediker Avenue, Brooklyn, N. Y.
- Margolies, Raymond N.
119 Lackawanna Avenue, Olyphant, Pa.
- Megibow, Louis
314-28th Street, Woodcliff, N. J.

- Miceli, Anthony Victor
273 Ninth Avenue, New York City
- Molbegat, Abner
114-59 Farmers Boulevard, St. Albans, N. Y.
- Oaklander, Isidore
1315 Bronx River Avenue, Bronx, New York,
N. Y.
- Ortega, Louis B.
557 West 148 Street, New York City
- Patrizio, Silvio
108-21 Union Hall Street, Jamaica, N. Y.
- Pekarsky, Benjamin
1965 Bryant Avenue, New York, N. Y.
- Pillone, Maria
713 Lincoln Avenue, Ridgely Park, N. J.
- Pitchinick, Bernard
1737 Pitkin Avenue, Brooklyn, N. Y.
- Race, Clarence
45 Third Avenue, Bayshore, L. I.
- Reale, Victor A.
1569-78th Street, Brooklyn, N. Y.
- Reichman, Frances
648 Faile Street, New York, N. Y.
- Rosenberg, Abraham
4 Hinman Street, Middle Village, N. Y.
- Rosenberg, Isidor
197 Tenth Street, Long Island City, N. Y.
- Rossi, Filomena F.
30 Macdougall Street, New York City
- Rubenstein, Louis J.
85 Powell Street, Brooklyn, N. Y.
- Schlagel, Charles Jr.
18 Oak Street, Beacon, N. Y.
- Schmid, Frederick W. Jr.
Hillsdale Avenue, P. O. Box 286, Hillsdale,
N. J.
- Schmurok, Leon
19 Sterling Place, Brooklyn, N. Y.
- Schopmann, William Henry
103 Grace Street, Jersey City, N. J.
- Schubert, Georgia A.
21 East High Street, Bound Brook, N. J.
- Schuchman, David
210 Foster Avenue, Brooklyn, N. Y.
- Seitzman, Max
193 Howe Avenue, Passaic, N. J.
- Skasko, Stephen
10 Fairfield Avenue, Danbury, Conn.
- Soracco, Frank
15 South Main Street, Liberty, N. Y.
- Sorensen, Harry
517 East 26th Street, Brooklyn, N. Y.
- Sparacio, C. J.
30 Harrison Avenue, Monson, Mass.
- Spitz, Morris S.
196 W. Broadway, Paterson, N. J.
- Sporn, Arthur
431 East 83rd Street, New York City
- Steiner, David
55 East 88th Street, New York City
- Stopen, Theodore
528 East 142 Street, New York City
- Sugarman, Benjamin
1 Grant Place, Weehawken, N. J.
- Taylor, Esser O.
433 So. Seventh Avenue, Mount Vernon,
N. Y.
- Teicher, Milton
527 West 135th Street, New York City
- Teichholz, Bernard
309 Madison Street, Passaic, N. J.
- Wagman, Meyer
651 East 220 Street, New York City
- Wagner, Harry F.
8967-214th Street, Queens Village, N. Y.
- Waltz, Hugo Joseph
264 Morris Street, Union City, N. J.
- Wang, Sidney R.
683 Pennsylvania Avenue, Brooklyn, N. Y.
- Weber, Jacob
1059 Glenmore Avenue, Brooklyn, N. Y.
- Wilentz, Alexander
28 W. Palisade Avenue, Englewood, N. J.
- YaDeau, George J.
23 West Ruby Avenue, Palisades Park, N. J.
- Yukelson, Arthur W.
1209 Westchester Avenue, Bronx, N. Y.
- Zunz, Edward
542-28th Street, Union City, N. J.
- Zweig, Arthur
9 Pinehurst Avenue, New York City
(111)

SOPHOMORE UNIVERSITY CLASS

- Benjamin, Irving
35 Brookside Place, New Rochelle, N. Y.
- Berest, Joseph
2335 Walton Avenue, New York, N. Y.
- Betzer, Clifford William
194-54 114th Road, St. Albans, N. Y.
- Canepa, John Joseph
111 Anderson Avenue, Scarsdale, N. Y.
- Carlat, Bernard
1914 East 18th Street, Brooklyn, N. Y.
- D'Avella, Ben Johnson
167 Parker Street, Newark, N. J.
- De Domenico, Ida
287 Bleecker Street, New York City
- Eisenberg, Julius
327 Steinway Avenue, Astoria, N. Y.
- Fisher, Sidney Alexander
1016 Simpson Street, New York, N. Y.
- Gaer, Bertram
641 Lafayette Avenue, Brooklyn, N. Y.
- Henkin, Samuel
919 Forest Avenue, New York City

Hubbard, Earl Edmund
63 Second Avenue, Bayshore, L. I.

Jacobs, Julius
1281 Eastern Parkway, Brooklyn, N. Y.

Kucker, George
1114 Magnolia Avenue, Elizabeth, N. J.

Lichtenberg, Raymond
226 Adams Street, Hoboken, N. J.

Massarsky, Solomon
16 Second Street, Weehawken, N. J.

Moskowitz, Herman
323 Packman Avenue, Fleetwood, N. Y.

Muller, Alfred Carl
147-16 Seventeenth Road, Whitestone, N. Y.

Nochimow, Eliezer
489 Willoughby Avenue, Brooklyn, N. Y.

Noll, William Frederick
2502 So. Fairfield Avenue, Fort Wayne, Ind.

Pagano, Alphonse F.
213 Van Brunt Street, Brooklyn, N. Y.

Peskin, Benjamin
179 East 101st Street, New York City

Sacharow, Samuel S.
7111-20th Avenue, Brooklyn, N. Y.

Sadinsky, Hyman B.
60 Maple Street, Norwich, Conn.

Seldeen, Israel Barnett
204 Broadway, Amityville, N. Y.

Seligman, Morris William
317 East 27th Street, New York, N. Y.

Simcovigz, Robert
848 Belmont Avenue, Springfield, Mass.

Stephanou, Eli
33 Thames Street, Norwich, Conn.

Stevens, Eli
450 Bay Ridge Avenue, Brooklyn, N. Y.

(29)

FRESHMEN UNIVERSITY CLASS

Abramson, Samuel
362 East 169th Street, c/o B. Goldstein
New York, N. Y.

Burch, Collingwood Vincent
St. Georges, Bermuda, P. O. B. 17

Cassano, Caesar
2147 Washington Avenue, New York, N. Y.

Chesler, Morris
4338 Gunther Avenue, New York, N. Y.

Cohen, Gertrude
22 First Street, Weehawken, N. J.

Fauci, Stephen Antonio
1669-79th Street, Brooklyn, N. Y.

Fehder, Paul
5918 18th Avenue, Brooklyn, N. Y.

Feinberg, Solomon
2820 W 36th Street, Coney Island, Brooklyn,
N. Y.

Gain, Ethel Annie Louise
Jeffersonville, N. Y.

Goldberg, Meyer
1091 Longfellow Avenue, New York City

Hoffman, Bernard William
9127 St. Charles Court, Woodhaven, N. Y.

Levsky, William Samuel
2818 Heath Avenue, New York, N. Y.

Lipschitz, Leo
7007-19th Avenue, Brooklyn, N. Y.

Livingston, Elias
801 West End Avenue, New York, N. Y.

Mar, George Kaye
296 Ellen Street, Winnipeg, Man., Canada

Marcus, Irving
791 Troy Avenue, Brooklyn, N. Y.

Mehlsak, Harry Nathan
1985 Creston Avenue, New York, N. Y.

Merring, Harry Louis
3568 North 163rd Street, Flushing, L. I.

Miller, Benjamin
91 Center Street, Ellenville, N. Y.

Orfuss, Abraham Jack
2920 West 27th Street, Brooklyn, N. Y.

Schwartz, Israel C.
3 Manitou Avenue, Poughkeepsie, N. Y.

Shapiro, Mandel
563 West 185th Street, New York, N. Y.

Smith, Henry
2353 Foster Avenue, Brooklyn, N. Y.

Smith, Robert
143 Albany Avenue, Brooklyn, N. Y.

Vigdarowitz, Martin
65 East 99th Street, New York, N. Y.

Yip, Kew Dock
51 Pender Street E., Vancouver, Canada

(26)

SECOND YEAR COLLEGE CLASS

Abrams, Michael Irving
108-21st Street, West New York, N. J.

Ackerman, Ruth
749 Kelly Street, New York, N. Y.

Allegra, Frank
65 Webster Avenue, Long Island City, N. Y.

Alperstein, Hyman Meyer
216 East 10th Street, New York, N. Y.

Anderson, Arthur Gustave
4 Travers Avenue, Mamaroneck, N. Y.

Asbell, Joseph
1420 Nostrand Avenue, Brooklyn, N. Y.

Bacchiani, Torquato
211 East 57th Street, New York, N. Y.

Bambara, Aurelius John
1271-42nd Street, Brooklyn, N. Y.

Bardfield, Gustave
9720 Jamaica Avenue, Woodhaven, N. Y.

Bartha, John Anthony, Jr.
165 Hamilton Street, New Brunswick, N. J.

Bauer, Max
400 Eighth Street, West New York, N. J.

- Bauer, Paul Edgar
249 Post Avenue, Westbury, L. I.
- Berkowitz, Bernard
109 Eldridge Street, New York, N. Y.
- Beyer, Isadore
Spring Glen, N. Y.
- Bittar, Albert
5101 Sixth Avenue, Brooklyn, N. Y.
- Blatt, Jacob
3540 Rochambeau Avenue, New York, N. Y.
- Blumberg, Lester
180 Danforth Avenue, Jersey City, N. J.
- Boxer, Meyer
131 Rockaway Parkway, Brooklyn, N. Y.
- Bronzo, Ralph
2070 West Ninth Street, Brooklyn, N. Y.
- Bussle, Harry
1718 Washington Avenue, New York, N. Y.
- Calabrese, Savino Daniel
826 Second Avenue, New York, N. Y.
- Capobianco, Dominick Thomas
506 Brook Avenue, New York, N. Y.
- Carroll, Harry
468 Wyona Street, Brooklyn, N. Y.
- Cassara, Anthony V.
1121-40th Street, Brooklyn, N. Y.
- Charnes, Randolph
495 East 174th Street, New York, N. Y.
- Chernoff, Max
607 Hopkinson Avenue, Brooklyn, N. Y.
- Cimino, John A.
485 Henry Street, Brooklyn, N. Y.
- Cipnic, Herman
111-11 Liberty Avenue, Richmond Hill, N. Y.
- Cohen, Bernard Martin
2001 Douglass Street, Brooklyn, N. Y.
- Cohen, Harry
561 West 163rd Street, New York, N. Y.
- Cohen, Henry
325 Wallabout Street, Brooklyn, N. Y.
- Cohen, Isaac
591 East 141st Street, New York, N. Y.
- Cohen, Meyer
537 West 141st Street, New York, N. Y.
- Cohen, Sidney
450 East 184th Street, New York, N. Y.
- Cohen, William
726 Rockaway Avenue, Brooklyn, N. Y.
- Coppola, Angelo
34-21 91st Street, Jackson Heights, N. Y.
- Costabile, Hugo
872 East 163rd Street, New York, N. Y.
- Crafa, Mary P.
9412 Van Wyck Avenue, Richmond Hill, N. Y.
- Davis, Benjamin Richard
1771-57th Street, Brooklyn, N. Y.
- Decter, Jacob
11 McDonough Street, Brooklyn, N. Y.
- Denker, Benjamin
496 East 174th Street, New York, N. Y.
- Diamondstein, Joseph
1506 Walton Avenue, New York, N. Y.
- Dicker, Morris
228 Sixth Street, New York, N. Y.
- Dier, Philip
2797 East 7th Street, Brighton Beach, N. Y.
- Dinin, Jack
139 Division Street, New York, N. Y.
- Dogan, Max
1594 East 10th Street, Brooklyn, N. Y.
- Dwoskin, Barney William
2930 West 36th Street, Coney Island, N. Y.
- Ellinson, Barnett
868 East 172nd Street, New York, N. Y.
- Epstein, Samuel Irving
315 East 102nd Street, New York, N. Y.
- Failla, Silvio Joseph
740 Main Street, North Bergen, N. J.
- Falk, Benjamin
312 Madison Street, New York, N. Y.
- Fazio, Ignatius
3629 White Plains Avenue, New York, N. Y.
- Feldman, Morris
120 Bristol Street, Brooklyn, N. Y.
- Fermaglich, Louis Joseph
67 Sheriff Street, New York, N. Y.
- Fialkow, Benjamin
547 Howard Avenue, Brooklyn, N. Y.
- Firemark, Samuel
107-57 Union Hall Street, Jamaica, N. Y.
- Flaherty, Sister Mary Oswald
Marywood College, Scranton, Pa.
- Flaumenbaum, Irving
1454 East 14th Street, Brooklyn, N. Y.
- Fleissig, Arthur
378 East 10th Street, New York, N. Y.
- Flexer, Isidore
839 Howard Avenue, New Haven, Conn.
- Form, Milton
1828 Myrtle Avenue, Brooklyn, N. Y.
- Frankel, Isidore
156 Second Avenue, New York, N. Y.
- Frankfort, Morris
1980 East 26th Street, Brooklyn, N. Y.
- Fried, Emanuel
1584 East 172nd Street, New York, N. Y.
- Friedberg, Irving
522 Christopher Avenue, Brooklyn, N. Y.
- Gellar, Henry
1003 Clarkson Avenue, Brooklyn, N. Y.
- Getzlek, George
412 Lansing Street, Utica, N. Y.
- Gitlin, Benjamin
1830 Anthony Avenue, New York City
- Glick, Percy
2716 Hubbard Street, Brooklyn, N. Y.

- Gluck, Morton
1560 Amsterdam Avenue, New York, N. Y.
- Gold, Morris
1096 West Farms Road, c/o Schlossberg
New York, N. Y.
- Goldberg, Harry
311 West 14th Street, New York, N. Y.
- Goldfarb, Samuel
744 Coster Street, New York, N. Y.
- Govendy, Anna Belle
1233 South State Street, Syracuse, N. Y.
- Gralewski, Walter
757-41st Street, Brooklyn, N. Y.
- Greenstein, Edward
361 Van Sicklen Avenue, Brooklyn, N. Y.
- Gressey, Henry
31-14 36th Street, Astoria, L. I.
- Guagliardo, Vincent Francis
28 Harrison Avenue, Monson, Mass.
- Haimowitz, Benjamin
23 Tapscott Street, Brooklyn, N. Y.
- Hamburg, David
1019 Freeman Street, New York, N. Y.
- Hickman, Louis Harry
145 W. 98th Street, New York, N. Y.
- Hirschmann, Jonas
278 Magnolia Avenue, Jersey City, N. J.
- Holzman, Jack
59-14 39th Avenue, Woodside, L. I.
- Huber, Henry
213 Euclid Avenue, Ridgefield Park, N. J.
- Huger, Charles
1421 Crotona Avenue, New York, N. Y.
- Hurwitz, Myer
1402 S. McBride Street, Syracuse, N. Y.
- Israel Samuel
470 Snediker Avenue, Brooklyn, N. Y.
- Jackson, Joseph
948 Tiffany Street, New York, N. Y.
- Jurow, Louis
Mongaup Valley, N. Y.
- Kaufman, George Sam
569 Saratoga Avenue, Brooklyn, N. Y.
- Kessler, Nathan
227 Ashburton Avenue, Yonkers, N. Y.
- Klein, Joseph
1532 West 10th Street, Brooklyn, N. Y.
- Klorman, Joseph
152 East 96th Street, Brooklyn, N. Y.
- Kobelivker, Joseph
734 Saratoga Avenue, Brooklyn, N. Y.
- Koretsky, Leon
699 Willoughby Avenue, Brooklyn, N. Y.
- Koslowsky, David
1967-71st Street, Brooklyn, N. Y.
- Kosowsky, Milton Stanley
52 Summer Street, New London, Conn.
- Kosoff, Charles
37-64 Warren Street, Elmhurst, L. I.
- Kressel, Marcus
171 Essex Street, New York, N. Y.
- Kyzer, Anton Louis
30-70 45th Street, Astoria, N. Y.
- Lacovara, George
754 East 215th Street, New York City
- Lauria, Anthony
460 Fairmount Avenue, Jersey City, N. J.
- Lowentman, Julius
115 East 114th Street, New York, N. Y.
- Lerman, Nathaniel B. Colchester, Conn.
- Lerner, Isadore
50 East 3rd Street, New York, N. Y.
- Levine, Theodore
371 Crown Street, Brooklyn, N. Y.
- Liberman, Joseph Rudolph
1061 Intervale Avenue, New York, N. Y.
- Liebowitz, Harry C.
1154 College Avenue, New York, N. Y.
- Lindheim, Michael
4 Blake Avenue, Brooklyn, N. Y.
- Lissman, Harold
230 East 173rd Street, New York, N. Y.
- Loscalzo, Joseph
125-46th Street, Corona, N. Y.
- McDavid, Sydney Sigeman Alonzo
801 Freeman Street, New York, N. Y.
- Maggio, John
107 Ridgewood Avenue, Brooklyn, N. Y.
- Maisel, Milton
300 Riverside Drive, New York, N. Y.
- Mandel, Charles
341 Wythe Avenue, Brooklyn, N. Y.
- Mandelblit, Morris
990 Greene Avenue, Brooklyn, N. Y.
- Manfre, Stephen
204 Baltic Street, Brooklyn, N. Y.
- Mariani, Faustina
3350 White Plains Avenue, New York, N. Y.
- Marion, Bernard
604 West 191st Street, New York, N. Y.
- Marotta, Raphael A.
2301-35th Avenue, Astoria, L. I.
- Marra, Joseph Richard
11 Ohio Avenue, Port Washington, N. Y.
- Marshall, Lillian
412 Myrtle Avenue, Coytesville, N. J.
- Matragrano, Anthony John
Bedford Hills, N. Y.
- Matthias, Eulalie Ravina
308 West 129th Street, New York, N. Y.
- Mazie, Jack
224 Avenue A, New York, N. Y.
- Mazur, Samuel
33 Montgomery Street, New York, N. Y.
- Meiselman, Harold Engel
9 Northern Avenue, New York, N. Y.
- Miller, Bernard
1450 Bryant Avenue, New York, N. Y.

- Millner, Samuel
 73 Grafton Street, Brooklyn, N. Y.
 Mininberg, Harry
 909 Kelly Street, New York, N. Y.
 Montesano, Benjamin
 9 Green Street, Paterson, N. J.
 Mordente, Constance Florence
 423 East 122nd Street, New York, N. Y.
 Mordente, Josephine
 423 East 122nd Street, New York, N. Y.
 Moroch, David
 2116-66th Street, Brooklyn, N. Y.
 Murdock, Peter C.
 25 Amsterdam Place, Mount Vernon, N. Y.
 Mussawir, Alfred George
 436-45th Street, Brooklyn, N. Y.
 Naftal, Benjamin Harold
 329 East 94th Street, New York, N. Y.
 Napoliello, Joseph Francis
 21 Grace Street, Jersey City, N. J.
 Nemiroff, Max Milton
 1220-45th Street, Brooklyn, N. Y.
 Nestampower, Morris
 485 East 95th Street, Brooklyn, N. Y.
 Nieporent, Morris
 63 East 118th Street, New York, N. Y.
 Orkand, Sidney
 1812 Clay Avenue, New York, N. Y.
 Paley, Jacob
 102-44 Jamaica Avenue, Richmond Hill,
 L. I.
 Papalinsky, Morris
 1001 Lincoln Place, Brooklyn, N. Y.
 Pekarsky, Morris
 219 East 10th Street, New York, N. Y.
 Peltz, Philip William
 252 West 91st Street, New York, N. Y.
 Pinck, Nathan
 84 Henry Street, Passaic, N. J.
 Platt, Max
 953 East 174th Street, New York, N. Y.
 Posner, Albert Hyman
 923 Fox Street, New York, N. Y.
 Pospisil, Rudolph Joseph
 30-70 32nd Street, Astoria, N. Y.
 Rabinowitz, Kalman
 239 Henry Street, New York, N. Y.
 Ramo, Louis
 34 St. Marks Avenue, Rockville Centre, L. I.
 Reich, Bernard
 163 Smith Street, Brooklyn, N. Y.
 Reife, William
 1023 Hopkinson Avenue, Brooklyn, N. Y.
 Reisch, George F.
 60 East Palisade Boulevard, Palisade Park,
 N. J.
 Rende, Alfonso Louis
 723 East 229th Street, New York, N. Y.
 Robas, Mildred Marie
 90-54 178th Street, Jamaica, N. Y.
 Robinson, Abraham
 237 Hart Street, Brooklyn, N. Y.
 Ronick, Charles
 1244 Wheeler Avenue, New York, N. Y.
 Ronsheim, Julian
 808 West End Avenue, New York, N. Y.
 Rosenberg, David
 128 Goerck Street, New York, N. Y.
 Rosenberg, Hyman
 387 Williams Avenue, Brooklyn, N. Y.
 Rosenberg, Irving
 87 Siegel Street, Brooklyn, N. Y.
 Rosenberg, Isaac
 826 East 167th Street, New York, N. Y.
 Rosenberg, Samuel
 1175 East 9th Street, Brooklyn, N. Y.
 Rosenman, Chaim
 610 Concord Avenue, New York, N. Y.
 Rosenthal, William
 120 West 112th Street, New York, N. Y.
 Rosmosky, Abraham
 27 East 110th Street, New York, N. Y.
 Rothbaum, Milton
 2800 Bronx Park East, New York, N. Y.
 Rothberg, Philip
 1566 St. Marks Avenue, Brooklyn, N. Y.
 Rothman, Abraham Herbert
 1420 Stebbins Avenue, New York, N. Y.
 Rovner, Louis
 310 South Third Street, Brooklyn, N. Y.
 Rubenstein, Arthur
 505 Essex Street, Brooklyn, N. Y.
 Rubin, Benjamin
 493 Second Avenue, New York, N. Y.
 Rubin, Harold
 870 Riverside Drive, New York, N. Y.
 Saperstein, Milton
 1519 Plimpton Avenue, New York, N. Y.
 Schechter, Hyman
 418 East 5th Street, New York, N. Y.
 Schechter, Morris
 348 East 9th Street, New York, N. Y.
 Scheer, John Jonas
 1997 Lexington Avenue, New York, N. Y.
 Scher, Wilfred
 1157 Manor Avenue, New York, N. Y.
 Scherer, Paul
 126 East Second Street, New York, N. Y.
 Schneck, Max R.
 984 Sheridan Avenue, New York, N. Y.
 Scholefield, Charles Wesley
 23 Ralph Street, Beacon, N. Y.
 Schulman, Solomon
 814 East 166th Street, New York, N. Y.
 Schur, Sidney
 2012 East 13th Street, Brooklyn, N. Y.

- Schwartz, Hyman
819 East 168th Street, New York, N. Y.
- Schwartz, Joseph George
250 East 30 Street, New York, N. Y.
- Scouras, Constantine
29 West 65th Street, New York, N. Y.
- Shapiro, Daniel
1518 East 172nd Street, New York, N. Y.
- Sherman, Harold
1448 Fifth Avenue, New York City
- Shub, Abraham
632 Vermont Street, Brooklyn, N. Y.
- Shucard, Jacob
920 Stone Avenue, Brooklyn, N. Y.
- Siderman, Morris
2784 East 7th Street, Brooklyn, N. Y.
- Siegel, Joseph
Ferndale, N. Y.
- Siegel, Solomon
512 East Taylor Street, Syracuse, N. Y.
- Silverman, Max
525 Miller Avenue, Brooklyn, N. Y.
- Silverstein, George J.
12 Pinehurst Avenue, New York, N. Y.
- Singer, Max
296 Delancey Street, New York, N. Y.
- Slobin, Jacob
807-28th Street, Union City, N. J.
- Slutzkin, Frederick
751 East 155th Street, New York City
- Smith, Van Roy
130 West 142nd Street, Apt. 10, New York, N. Y.
- Spanier, Irving
117 Clymer Street, Brooklyn, N. Y.
- Spetalnick, Max J.
1245 Ward Avenue, New York, N. Y.
- Spirko, Stephen M.
5 Wilson Street, Jessup, Pa.
- Steinberg, Isidore
1180-47th Street, Brooklyn, N. Y.
- Steiner, Elias
880 East 178th Street, New York, N. Y.
- Stitzel, Louis
308 East 6th Street, New York, N. Y.
- Stolper, Morris
19 East 108th Street, New York, N. Y.
- Strauss, Morris
104-06 East 2nd Street, New York, N. Y.
- Thompson, Joseph Henry
100 Hester Street, New York, N. Y.
- Tishler, George
1593 Prospect Place, Brooklyn, N. Y.
- Tobias, Meyer
537 Palisade Avenue, Jersey City, N. J.
- Troub, Louis
1728 Sterling Place, Brooklyn, N. Y.
- Tunis, Philip
138 Norfolk Street, New York, N. Y.
- Twersky, Mary
3406-31 Avenue, L. I. City, N. Y.
- Valerio, Leo Joseph
345 West 21st Street, New York, N. Y.
- Vasiliades, Angelo
257 Second Street, Lakewood, N. J.
- Webman, Larry
402 South 2nd Street, Brooklyn, N. Y.
- Weidenbaum, Ralph
248 East Houston Street, New York, N. Y.
- Weinberg, Victor
219 Henry Street, New York, N. Y.
- Weinstein, Louis
1808-75th Street, Brooklyn, N. Y.
- Weintraub, Hyman
57 Suffolk Street, New York, N. Y.
- Weiss, Louis
398 Ralph Avenue, Brooklyn, N. Y.
- Wexlin, Hyman
1219 Rosedale Avenue, New York, N. Y.
- Winokur, Aaron
2223 Surf Avenue, Brooklyn, N. Y.
- Wisztreich, Edward
315 East 79th Street, New York, N. Y.
- Wollenberg, Hamilton
136 East 96th Street, New York, N. Y.
- Zanca, Anthony
1320 Brook Avenue, New York, N. Y.
- Zeichner, Lewis Abraham
278 East 7th Street, New York, N. Y.
- Zunin, Louis
980 Sutter Avenue, Brooklyn, N. Y.
- (230)

FIRST YEAR COLLEGE COURSE

- Abramson, Jacob
72 Brookfield Street, White Plains, N. Y.
- Achiron, Harold
54 Lewis Avenue, Brooklyn, N. Y.
- Adelman, Rubin
761 Elton Avenue, New York, N. Y.
- Aloisi, Frank
1226 Ward Avenue, New York, N. Y.
- Anderson, Ometta C.
281 Edgecomb Avenue, New York, N. Y.
- Aponofsky, Anna
Broadway & Little Neck Road, Little Neck, L. I.
- Armband, Max
327 East 5th Street, New York, N. Y.
- Arnowitz, Barnett
105 East 123rd Street, New York, N. Y.
- Avstreich, Albert
203 Academy Street, Jersey City, N. J.
- Barile, Emerico Alfred
235 West 67th Street, New York, N. Y.
- Bateman, Edward Henry
36 North Street, Pulaski, N. Y.

- Bauer, Charles W.
249 Post Avenue, Westbury, L. I.
- Beghin, Frank A.
336 East 107th Street, New York, N. Y.
- Belfer, Samuel
1090 Washington Avenue, New York, N. Y.
- Belinsky, Benjamin
62 East 119th Street, New York, N. Y.
- Berkowitz, Aaron J.
106 West 61st Street, New York, N. Y.
- Berkowitz, Carl
15 East 107th Street, New York, N. Y.
- Berlin, Joseph
106 Quincy Street, Passaic, N. J.
- Berliner, Meyer
Great Neck, L. I.
- Bernstein, Sydney
2037 Hughes Avenue, New York, N. Y.
- Birdslow, Kent Bishop
Lacona, N. Y.
- Blank, George
1765 Walton Avenue, c/o Tepper, New York, N. Y.
- Blois, Bernard Edward
34 King Street, New York, N. Y.
- Bloom, Albert Sidney
58 Fairmount Street, Norwich, Conn.
- Bloom, Isidore
390 East 4th Street, New York, N. Y.
- Boghosian, Paul Der
488 New York Avenue, Union City, N. J.
- Bookstaber, Leo
32-42 33rd Street, Long Island City, N. Y.
- Boxer, Louis
427 East 170th Street, New York, N. Y.
- Braswell, James Le Roy
265 Flatbush Avenue, Brooklyn, N. Y.
- Breimer, Julius Albert
429 East 168 Street, New York, N. Y.
- Brescia, Matthew R.
812 Pembroke Street, Bridgeport, Conn.
- Brown, Charles Lloyd
2054 Fletcher Avenue, Fort Lee, N. J.
- Buono, Joseph
30 Cornelia Street, New York, N. Y.
- Calabrese, Theodore V.
3719 Foster Avenue, Brooklyn, N. Y.
- Calleo, Nicholas Benjamin
22 Van Wort Place, Jersey City, N. J.
- Capillo, Joseph B.
8717-94th Street, Woodhaven, N. Y.
- Caprio, Ralph
140 Parker Street, Newark, N. J.
- Carpinelli, Michael J.
281 Linden Avenue, Jersey City, N. J.
- Caruso, Mario
491 Warren Street, Brooklyn, N. Y.
- Cassera, Grace Leona
1531-68th Street, Brooklyn, N. Y.
- Catozzio, Peter
729 Adam Street, West New York, N. J.
- Cecere, Natale
431-28th Street, Woodcliff, N. J.
- Charlip, Abraham M.
440 Williams Avenue, Brooklyn, N. Y.
- Chefetz, Hyman H.
540 East 5th Street, New York, N. Y.
- Chernow, Jack
1162-52nd Street, Brooklyn, N. Y.
- Chomsky, Isidore
1443-38th Street, Brooklyn, N. Y.
- Christman, Frederick W.
34 Oak Street, Valley Stream, N. Y.
- Cohen, Abe
2333 Webster Avenue, New York, N. Y.
- Cohen, Charles
111 Tudor Place, New York, N. Y.
- Cohen, Frank
2216 Douglass Street, Brooklyn, N. Y.
- Cohen, Herman
1532-45th Street, Brooklyn, N. Y.
- Cohen, Joseph
1490 Crotana Park East, New York, N. Y.
- Cohen, Max
61 East 99th Street, New York, N. Y.
- Cuffee, Arthur Smallwood
146 West 143rd Street, New York, N. Y.
- DeMucci, Frank Robert
40-36 97th Street, Corona, N. Y.
- De Rosa, Michael Angelo
860 East 232nd Street, New York, N. Y.
- Diamond, Morris
261 West 21st Street, New York, N. Y., Apt. 10
- Drogin, Jacob
467 Avenue A, Bayonne, N. J.
- Dubitsky, Jules
23 West 52nd Street, Bayonne, N. J.
- Dworkowitz, Jesse
420 Avenue S, Brooklyn, N. Y.
- Edelstein, Isadore
305 East Mine Street, Hazleton, Pa.
- Eichler, Julian
31-11 28th Street, Jackson Heights, N. Y.
- Eichner, Jerome
51 Farrington Street, Flushing, N. Y.
- Eicken, Nathan
180 Mercer Street, Jersey City, N. J.
- Eilberg, Abraham
700 Saratoga Avenue, c/o Tiegel, Brooklyn, N. Y.
- Eisenberg, Robert
1424 Parker Street, New York, N. Y.
- Emrich, Ralph James
115 Maine Avenue, West New Brighton, S. I.
- Epstein, Marvin M.
110 Walnut Street, Springfield, Mass.
- Epstein, Max H.
115 Grand Street, Brooklyn, N. Y.
- Epstein, Paul
72 Jackson Avenue, Jersey City, N. J.

- Evans, Max
364 Monroe Street, Brooklyn, N. Y.
- Feigelson, Irving
2838 West 19th Street, Coney Island, N. Y.
- Feinberg, Irving B.
469 Cleveland Street, Brooklyn, N. Y.
- Ferrara, Vincent
208 Fifth Street, Jersey City, N. J.
- Fialk, Robert
198 Hopkins Avenue, Jersey City, N. J.
- Fichiera, Michael
132 East 109th Street, New York, N. Y.
- Ficks, Jacob
8675 Bay 16th Street, Brooklyn, N. Y.
- Fishberg, Murray Leonard
153 Morton Place, New York, N. Y.
- Fitzer, Aaron
1166 Theriot Avenue, New York, N. Y.
- Fox, Pincus
190 Norfolk Street, New York, N. Y.
- Frank, Jacob
168 Brown Place, New York, N. Y.
- Frankel, David
375 East Main Street, Bridgeport, Conn.
- Frankel, Leonard R.
764 Trinity Avenue, New York, N. Y.
- Frankel, Sidney
744 Hudson Avenue, West New York, N. J.
- Freed, Israel
285 Van Buren Street, Brooklyn, N. Y.
- Friedberg, Alexander
61 E. 95th Street, New York, N. Y.
- Friedland, Peter Robert
3999 Dickinson Avenue, New York, N. Y.
- Gaal, Albert George
574 Manhattan Avenue, Brooklyn, N. Y.
- Garrambone, Carmelo J.
878 Fourth Avenue, Long Island City, N. Y.
- Geller, Isidore B.
1218 Hoe Avenue, New York, N. Y.
- Gellis, Joseph
60 Trenton Avenue, White Plains, N. Y.
- Gerson, Alexander
1044 De Kalb Avenue, Brooklyn, N. Y.
- Ginsberg, Asna Mendelevska
1927 University Avenue, Bronx, N. Y.
- Gise, Meyer
1862-75th Street, Brooklyn, N. Y.
- Gitlin, Bernard Edward
Box 23, Colchester, Conn.
- Giuliani, Arthur J.
246½ Central Avenue, Union City, N. J.
- Glazer, Harry
537 Claremont Parkway, Bronx, N. Y.
- Glick, William Joseph
Central Valley, N. Y.
- Glinefsky, William
1701 Eastburn Avenue, New York, N. Y.
- Godlin, Abraham
Woodbourne, N. Y.
- Gold, Joseph
1434 Bryant Avenue, New York, N. Y.
- Goldstein, Martin
505 Bergen Avenue, Jersey City, N. J.
- Goldstein, Max
871 Longwood Avenue, New York, N. Y.
- Gordon, J. Jack
42-72nd Street, Brooklyn, N. Y.
- Gottlieb, George
310 East 30th Street, New York, N. Y.
- Grant, Raymond L.
120 Wait Avenue, Ithaca, N. Y.
- Grayer, Albert A.
55 Hanson Place, Brooklyn, N. Y.
- Greenfader, Morris B.
2223-62nd Street, Brooklyn, N. Y.
- Gregorczyk, Leon
65 Williams Avenue, Jersey City, N. J.
- Grinwalski, Stephen
109 Harwinton Road, Torrington, Conn.
- Gutes, Morris C.
17-27 Van Sicklen Avenue, Brooklyn, N. Y.
- Halper, Arthur M.
1055 University Avenue, New York, N. Y.
- Halper, Lewis
1208 Maple Avenue, Peekskill, N. Y.
- Halperin, Harold
531½ North Eighth Street, Reading, Pa.
- Halperin, Irving M.
419 Ocean Avenue, Jersey City, N. J.
- Hamann, George P. D.
398 Himrod Street, Brooklyn, N. Y.
- Hartman, Edward
123 Cornelia Street, Brooklyn, N. Y.
- Hayne, Charles G., Jr.
25 Reid Street, Charleston, S. C.
- Herbst, Arthur Stephan
340 East 77th Street, New York, N. Y.
- Hofmann, Henry C.
305 Dill Place, Brooklyn, N. Y.
- Homer, Theodore H., Jr.
2412 Seventh Avenue, Apt. 46, New York, N. Y.
- Homnik, Jacob
645 East 6th Street, New York, N. Y.
- Horowitz, Alexander
79 East 107th Street, New York, N. Y.
- Horowitz, Barnet
127 East Broadway, New York, N. Y.
- Horowitz, Samuel L.
558 Vermont Street, Brooklyn, N. Y.
- Hutter, Isidore
1291 Eastern Parkway, Brooklyn, N. Y.
- Jacaruso, John
150 Sullivan Street, New York, N. Y.
- Jacobs, Herman
296 Rochester Avenue, Brooklyn, N. Y.

- Jacobs, Meyer Jack
18 Pike Street, New York, N. Y.
- Jaffe, Max
Liberty, New York
- Jones, Herbert H.
11 Fifth Street, Weehawken, N. J.
- Kaplan, Samuel
39-04 60th Street, Woodside, L. I.
- Kaufman, Michael I.
636 East 13th Street, New York, N. Y.
- Kaufman, Sydney W.
2759 Sedgewick Avenue, New York, N. Y.
- Keller, Murray
312 Madison Street, New York City
- Kerewsky, Isidor
360 Garden Avenue, Mount Vernon, N. Y.
- Koslowsky, Harry
1967-71st Street, Brooklyn, N. Y.
- Kramer, Benjamin
630 East 137th Street, New York, N. Y.
- Kross, David T.
2937 West 35th Street, Brooklyn, N. Y.
- Kugelmass, Samuel
155 South Fourth Street, Brooklyn, N. Y.
- Lampert, Samuel
447 Powell Street, Brooklyn, N. Y.
- Last, Ben
824 East 181st Street, New York, N. Y.
- Lehrer, Morris
186 Riverdale Avenue, Brooklyn, N. Y.
- Lepard, Thomas H.
20 Fort Charles Place, New York, N. Y.
- Lerner, Irving
Fleischmans, N. Y.
- Levine, Hyman
921 Saratoga Avenue, Brooklyn, N. Y.
- Levine, Jonas
7613-18th Avenue, Brooklyn, N. Y.
- Levine, Samuel
801 West 181st Street, New York, N. Y.
- Levitt, Morris
8950 Woodhaven Boulevard, Woodhaven,
N. Y.
- Lewitus, Richard
3310 Kossuth Avenue, New York, N. Y.
- Lipetz, Morris
Grand Street, Riverhead, N. Y.
- Lipschitz, Edward
236 East 82nd Street, New York, N. Y.
- Liss, Max
347 East 17th Street, New York, N. Y.
- Lopez, Anacleto
438 Ninth Avenue, New York, N. Y.
- Loss, Margaret
1581 Fulton Avenue, New York, N. Y.
- Lubin, Sydney W.
4214-12th Avenue, Brooklyn, N. Y.
- MacCurran, James F.
12 Third Street, Weehawken, N. J.
- McSharry, William J.
10 Dashby Court, Rockaway Beach, N. Y.
- Madansky, Nathan
260 Milford Street, Brooklyn, N. Y.
- Malmud, Mayer M.
4320-16th Avenue, Brooklyn, N. Y.
- Mancini, Thomas A.
316 East 29th Street, New York, N. Y.
- Marino, Frank E.
122-11th Street, College Point, N. Y.
- Marks, Edward H.
1403 South Townsend Street, Syracuse, N. Y.
- Mascellaro, Hector E.
343 First Avenue, Long Island City, N. Y.
- Matthes, Herbert M.
209-12th Street, College Point, N. Y.
- Mazze, Jesse
1467 Seabury Avenue, New York, N. Y.
- Meyer, Morris
639 East 13th Street, New York, N. Y.
- Meyerson, Abraham
1041 Elder Avenue, New York, N. Y.
- Miele, Louis Walter
2153-82nd Street, Brooklyn, N. Y.
- Miller, Abraham
197 Van Buren Street, Brooklyn, N. Y.
- Minarik, William J.
3722-91st Street, Jackson Heights, L. I.
- Mishler, Benjamin
52 Belmont Avenue, Brooklyn, N. Y.
- Monestersky, Morris
923-53rd Street, Brooklyn, N. Y.
- Moskoff, Joseph W.
277 West 117th Street, New York, N. Y.
- Nelson, Isidore Ben
813 Centre Street, Bowling Green, Ky.
- Nestle, Leon
9518-91st Street, Ozone Park, N. Y.
- Newer, Joseph G.
1514 Lincoln Place, Brooklyn, N. Y.
- Novendstern, David
130 Ocean Avenue, Jersey City, N. J.
- Ochitell, Morris
2971 West 25th Street, Coney Island, N. Y.
- Oppenheim, Emanuel
4802 Ft. Hamilton Parkway, Brooklyn, N. Y.
- Padnis, Nathan
1240 Franklin Avenue, New York, N. Y.
- Palanzo, Charles R.
134 Willow Street, Yonkers, N. Y.
- Parrini, Arthur T.
1312 Avenue H, Brooklyn, N. Y.
- Pavone, Egidio
64 Thompson Street, New York, N. Y.
- Perry, Harold
66 East 96th Street, Brooklyn, N. Y.
- Perry, Sidney
123 Rockaway Parkway, Brooklyn, N. Y.

- Perveler, Martin L.
 1710 Hoe Avenue, New York, N. Y.
 Petziner, Norman
 1225 Seneca Avenue, New York, N. Y.
 Pickman, Harry
 696 Watkin Street, Brooklyn, N. Y.
 Pomerantz, Max
 150 East Second Street, New York, N. Y.
 Posner, Murray W.
 608 Tinton Avenue, New York City
 Posner, Sidney
 923 Fox Street, New York, N. Y.
 Rafal, Sidney
 567 Sheffield Avenue, Brooklyn, N. Y.
 Razzo, Frances
 125 Second Avenue, New York, N. Y.
 Ricca, Joseph
 227 Van Sicklen Street, Brooklyn, N. Y.
 Ricciardi, Ralph
 1957 West Fourth Street, Brooklyn, N. Y.
 Risch, Samuel S.
 3052 LaSalle Avenue, New York, N. Y.
 Riveles, George
 63 East 100th Street, New York City
 Riveles, Julius
 385 East Third Street, New York, N. Y.
 Rocco, Emilio J.
 27 St. Edwards Street, Brooklyn, N. Y.
 Rosen, Julius
 70 Lenox Avenue, New York, N. Y.
 Rosenberg, Solomon
 197 Tenth Street, Long Island City, N. Y.
 Rosenberg, William N.
 945 West End Avenue, New York, N. Y.
 Rosenzweig, Harry
 19 Henry Street, New York, N. Y.
 Rothleder, Paul
 2869 West 27th Street, Brooklyn, N. Y.
 Rubinfeld, Leonard
 106 Elizabeth Street, Peekskill, N. Y.
 Rubin, Paul
 630 Garden Street, Hoboken, N. J.
 Rubinstein, Jack
 299 Mt. Eden Avenue, New York, N. Y.
 Ruderman, Joseph
 19 East 113th Street, New York, N. Y.
 Sacco, John G.
 P. O. Box No. 3, West End, N. J.
 Saia, Joseph J.
 7 Court Street, Astoria, N. Y.
 Sampson, James H.
 2347 Druid Hill Avenue, Baltimore, Md.
 Savitch, Milton
 348 East 15th Street, New York City
 Schiffman, Albert
 1482 Brook Avenue, New York, N. Y.
 Schloss, Max
 137 Monroe Street, New York, N. Y.
 Schneider, Moses
 1321 College Avenue, New York, N. Y.
 Schneider, Nathan
 283 Liberty Avenue, Brooklyn, N. Y.
 Schwartz, Abraham
 490 Ocean Parkway, Brooklyn, N. Y.
 Schwartz, Alexander
 1490 Macombs Road, New York, N. Y.
 Schwartz, Isadore
 69 Liberty Place, Weehawken N. J.
 Schwartz, Max
 624 Hopkinson Avenue, Brooklyn, N. Y.
 Schwartz, Sidney
 256 Rivington Street, New York, N. Y.
 Seidel, Leo
 342 East 67th Street, New York, N. Y.
 Shefkowitz, Julius L.
 1076 Faile Street, New York, N. Y.
 Silberman, Joel
 585 East 169th Street, New York, N. Y.
 Silverman, Hyman
 424 Chester Street, Brooklyn, N. Y.
 Simon, Irving Edward
 708 East 176th Street, New York, N. Y.
 Simon, Moses B.
 137 Mansion Street, Poughkeepsie, N. Y.
 Smolowitz, Julius
 82 East 111th Street, New York, N. Y.
 Snyder, Sol
 535 West 163rd Street, New York, N. Y.
 Soldo, Americo
 419 East 160th Street, New York, N. Y.
 Somers, Joseph
 1427-41st Street, Brooklyn, N. Y.
 Starman, Arthur A.
 1202 Miller Street, Utica, N. Y.
 Stein, Irving
 229 West 101st Street, New York, N. Y.
 Stein, Solomon Charles
 1950 East 21st Street, Brooklyn, N. Y.
 Steir, Edward
 60 Sheriff Street, New York City
 Strongin, Jack
 105-20 75th Street, Woodhaven, N. Y.
 Tabachnick, William
 1709 Bathgate Avenue, New York, N. Y.
 Tannenbaum, Nathan
 52 Bay 22nd Street, Brooklyn, N. Y.
 Tenebra, Mary
 231 East Fifth Street, New York, N. Y.
 Tiersfeld, Nathan
 18 East 111th Street, New York, N. Y.
 Tomashoff, Sidney
 4502-16th Avenue, Brooklyn, N. Y.
 Tortora, Anthony
 194 Cambridge Avenue, Jersey City, N. J.
 Troisi, Mario Philip
 2211 Second Avenue, New York, N. Y.

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138 Sackman Street, Brooklyn, N. Y.

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378 Fulton Avenue, Jersey City, N. J.

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1437-40th Street, Brooklyn, N. Y.

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1216 Hoe Avenue, New York, N. Y.

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82 Columbia Street, New York, N. Y.

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281 Edgcomb Avenue, Apt. 1-D, New York, N. Y.

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610 West 143rd Street, New York, N. Y.

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1546 East 172nd Street, New York, N. Y.

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Weiss, Martin
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Weiss, Samuel
2162 Valentine Avenue, New York, N. Y.

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2056-74th Street, Brooklyn, N. Y.

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957 Fox Street, New York, N. Y.

Winer, Abe Marvin
440 East Sixth Street, New York, N. Y.

Winokur, Emanuel
577 Bushwick Avenue, Brooklyn, N. Y.

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928 Tiffany Street, New York, N. Y.

Wohl, Benjamin
797 Washington Avenue, Brooklyn, N. Y.

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120 Ludlow Street, New York, N. Y.

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155 Madison Street, New York, N. Y.

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Zimand, Philip
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Zimmerman, Everett L.
River Edge, N. J.

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Cedarhurst, N. Y.

Cayan, Kathryn
159 Howard Street, Passaic, N. J.

Charlton, H. W.
Eatontown, N. J.

Chisman, Michael
27 Kulick Street, Clifton, N. J.

Clamer, Harry
514 Monroe Avenue, Elizabeth, N. J.

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1638 East 15th Street, Brooklyn, N. Y.

De Carlo, Louis
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64 South Ninth Street, Brooklyn, N. Y.

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Clevery Hill, Sandy Point St. Kitts, British West Indies

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185 Bergen Avenue, Jersey City, N. J.

Karpman, Alexander
221 Sherman Avenue, New York, N. Y.

Kolbe, Alan
136 Pulaski Street, Brooklyn, N. Y.

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Lawentman, Julius
115 East 114th Street, New York, N. Y.

Lou, En Hou
74 Rue Fontainer, French Conc. Tientsin, China

- Miller, Moses
417 South Fifth Street, Brooklyn, N. Y.
- Ramichvili, Benjamin
217 West 79th Street, New York City
- Sanders, Herbert
Fifth Avenue, corner 80th Street, New York City
- Schneider, Charles
82 Beekman Street, New York, N. Y.
- Schulberg, L. J.
303 Marcy Avenue, Brooklyn, N. Y.
- Seider, Solomon
560 West 180th Street, New York, N. Y.
- Senegas, Jean
201 West 89th Street, New York, N. Y.
- Siegel, Max
778 Driggs Avenue, Bronx, N. Y.
- Sorin, Mae
275 West 117th Street, New York, N. Y.
- Steinberg, Charles
445 Pulaski Street, Brooklyn, N. Y.
- Thom, Hon Sing
31 Pell Street, New York, N. Y.
- Turner, Charles
9117-81st Street, Woodhaven, L. I.
- Weaver, George
168-16 84th Avenue, Jamaica, N. Y.
- Wimpie, Myra P.
1245 Stratford Avenue, New York, N. Y.
- Wong, San Wah
28 Mott Street, New York, N. Y.
- Yee, Chester H.
182 Washington Park, Brooklyn, N. Y.

SCHEME OF ATTENDANCE

COLLEGE CLASS FIRST YEAR

Tuesday

Section 1		Section 2		Section 3		Section 4	
9-10	MM 1-2 Botany Lect.	MM 1-2 Botany Lect.	MM 1-2 Botany Lect.	MM 1-2 Botany Lect.	MM 1-2 Botany Lect.	MM 1-2 Botany Lect.	
10-11	Phr. 3 Pharmacy Lab.	Phr. 3 Pharmacy Lab.	Phr. 3 Pharmacy Lab.	MM 3-4 Histology Lect.	MM 3-4 Histology Lect.	MM 3-4 Histology Lect.	
11-12	Phr. 3 Pharmacy Lab.	Phr. 3 Pharmacy Lab.	Phr. 3 Pharmacy Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	
12-1	Phr. 3 Pharmacy Lab.	Phr. 3 Pharmacy Lab.	Phr. 3 Pharmacy Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	
2-3	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	
3-4	Chm. 1-2 Physics Rec.	MM 1-2 Botany Rec.	MM 1-2 Botany Rec.	MM 5-6 Posology	MM 5-6 Posology	MM 5-6 Posology	
4-5	Phr. 1-2 Pharmacy Rec.	Chm. 1-2 Physics Rec.	Chm. 1-2 Physics Rec.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	
5-6	MM 1-2 Botany Rec.	Phr. 1-2 Pharmacy Rec.	Phr. 1-2 Pharmacy Rec.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	

Thursday

9-10	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	
10-11	MM 3-4 Histology Lect.	MM 3-4 Histology Lect.	MM 3-4 Histology Lect.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	
11-12	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	
12-1	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	
2-3	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	
3-4	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Phr. 1-2 Pharmacy Rec.	Chm. 3-4 Chemistry Rec.	Chm. 3-4 Chemistry Rec.	
4-5	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	MM 1-2 Botany Rec.	Phr. 1-2 Pharmacy Rec.	Phr. 1-2 Pharmacy Rec.	
5-6	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 3-4 Chemistry Rec.	Chm. 1-2 Physics Rec.	Chm. 1-2 Physics Rec.	

Saturday

9-10	Chm. 1-2 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	
10-11	MM 5-6 Posology	MM 5-6 Posology	MM 5-6 Posology	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.	
11-12	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.	
12-1	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.	
2-3	Chm. 1-2 Physics Lect.	Chm. 1-2 Physics Lect.	Chm. 1-2 Physics Lect.	Chm. 1-2 Physics Lect.	Chm. 1-2 Physics Lect.	Chm. 1-2 Physics Lect.	
3-4	Chm. 5-6 A. Chem. (Arith.) Rec.	Chm. 5-6 A. Chem. (Arith.) Rec.	Chm. 5-6 A. Chem. (Arith.) Rec.	Chm. 5-6 A. Chem. (Arith.) Rec.	Chm. 5-6 A. Chem. (Arith.) Rec.	Chm. 5-6 A. Chem. (Arith.) Rec.	
4-5	Chm. 3-4 Chemistry Rec.	Phr. 1-2 Pharmacy Rec.	Phr. 1-2 Pharmacy Rec.	Chm. 1-2 Physics Rec.	Phr. 1-2 Pharmacy Rec.	Phr. 1-2 Pharmacy Rec.	
5-6	Phr. 1-2 Pharmacy Rec.	Chm. 3-4 Chemistry Rec.	Chm. 3-4 Chemistry Rec.	Phr. 1-2 Pharmacy Rec.	Phr. 1-2 Pharmacy Rec.	Phr. 1-2 Pharmacy Rec.	

SCHEME OF ATTENDANCE

COLLEGE CLASS SECOND YEAR

Monday

	Section IX	Division X Section IIx	Section IIIx	Section IVy	Division Y Section Vy	Section VIy
9-10	Phr. 51-52 Pharmacy Rec.	Phr. 51-52 Pharmacy Rec.	Phr. 51-52 Pharmacy Rec.	Phr. 51-52 Pharmacy Rec.	Chm. 55-56 Chemistry Rec.	Chm. 55-56 Chemistry Rec.
10-11	MM 57-58 Physiology Lect.	MM 57-58 Physiology Lect.	MM 57-58 Physiology Lect.	MM 57-58 Physiology Lect.	MM 57-58 Physiology Lect.	MM 57-58 Physiology Lect.
11-12	Phr. 59-60 Compl. Pharm. Lect.	Phr. 59-60 Compl. Pharm. Lect.	Phr. 59-60 Compl. Pharm. Lect.	Phr. 59-60 Compl. Pharm. Lect.	Phr. 59-60 Compl. Pharm. Lect.	Phr. 59-60 Compl. Pharm. Lect.
12-1	Chm. 51-52 Physics Lect.	Chm. 51-52 Physics Lect.	Chm. 51-52 Physics Lect.	Chm. 51-52 Physics Lect.	Chm. 51-52 Physics Lect.	Chm. 51-52 Physics Lect.
2-3	Phr. 59-60 Compl. Pharmacy	Phr. 59-60 Compl. Pharmacy	MM 59-60 Microbiology	MM 59-60 Microbiology	MM 57-58 Physiology Rec.	MM 57-58 Physiology Rec.
3-4	Phr. 59-60 Compl. Pharmacy	Phr. 59-60 Compl. Pharmacy	MM 59-60 Microbiology	MM 59-60 Microbiology	Phr. 51-52 Pharmacy Rec.	Phr. 51-52 Pharmacy Rec.
4-5	MM 57-58 Physiology Rec.	Chm. 55-56 Chemistry Rec.	Phr. 59-60 Compl. Pharmacy	Phr. 59-60 Compl. Pharmacy	MM 59-60 Microbiology	MM 59-60 Microbiology
5-6	Chm. 55-56 Chem. Rec.	Phr. 51-52 Pharm. Rec.	Phr. 59-60 Compl. Pharmacy	Phr. 59-60 Compl. Pharmacy	MM 59-60 Microbiology	MM 59-60 Microbiology

Wednesday

9-10	Chm. 55-56 Chemistry Lect.	Chm. 55-56 Chemistry Lect.	Chm. 55-56 Chemistry Lect.	Chm. 55-56 Chemistry Lect.	Chm. 55-56 Chemistry Lect.	Chm. 55-56 Chemistry Lect.
10-11	Chm. 59-60 Chemistry Lab.	Chm. 55-60 Chemistry Lab.	Chm. 59-60 Chemistry Lab.	MM 53-54 Phar cog. Lab.	MM 53-54 Phar cog. Lab.	MM 53-54 Phar cog. Lab.
11-12						
12-1						
2-3	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.
3-4	Phr. 51-52 Pharmacy Rec.	MM 57-58 Physiology Rec.	Chm. 55-56 Chemistry Rec.	Chm. 55-56 Chemistry Rec.	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.
4-5	MM 59-60 Microbiology	MM 59-60 Microbiology	Phr. 51-52 Pharmacy Rec.	Phr. 51-52 Pharmacy Lab.	Phr. 53 Pharmacy Lab.	Phr. 53 Pharmacy Lab.
5-6	MM 59-60 Microbiology	MM 59-60 Microbiology	MM 57-58 Physiology Rec.	MM 57-58 Physiology Rec.		

Friday

9-10	Chm. 55-56 Chemistry Lect. { Phr. 53 Pharmacy Lab.	Chm. 55-56 Chemistry Lect. { Phr. 53 Pharmacy Lab.	Chm. 55-56 Chemistry Lect. { Chm. 59-60 Chemistry Lab.	Chm. 55-56 Chemistry Lect. { Chm. 59-60 Chemistry Lab.
10-1				
2-3	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.
3-4				Phr. 51-52 Pharmacy Lect.
4-5	MM 53-54 Pharmacog'y Lab.	MM 53-54 Phar cog Lab.	MM 57-58 Physiology Rec.	Phr. 59-60 Coml. Pharmacy
5-6			Phr. 51-52 Pharmacy Rec.	Phr. 59-60 Coml. Pharmacy
			Chm. 55-56 Chemistry Rec.	Phr. 51-52 Pharmacy Rec.

SCHEME OF ATTENDANCE

COLLEGE CLASS THIRD YEAR

Monday

	Section IX	Section IIx	Section IIIx	Section IIIy	Section IVy	Section Vy
9-10	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.
10-1	Chm. 109-110 Chm. and Pharm. Lab.*	Chm. 109-110 Chm. and Pharm. Lab.*	Chm. 109-110 Chm. and Pharm. Lab.*	Phr. 105-106 Pharm. and Chm. Lab.**	Phr. 105-106 Pharm. and Chm. Lab.**	Phr. 105-106 Pharm. and Chm. Lab.**
2-3	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.
3-6	Chm. 109-110 Chm. and Pharm. Lab.*	Chm. 109-110 Chm. and Pharm. Lab.*	Chm. 109-110 Chm. and Pharm. Lab.*	Phr. 105-106 Pharm. and Chm. Lab.**	Phr. 105-106 Pharm. and Chm. Lab.**	Phr. 105-106 Pharm. and Chm. Lab.**

Tuesday

2-6	Phr. 107-108 Disp. Pharmacy Lab.	Phr. 107-108 Disp. Pharmacy Lab.
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*September 23, 1929 to January 17, 1930 Chemistry Laboratory and January 27 to May 9, 1930 Pharmacy Laboratory.

**September 23, 1929 to January 17, 1930 Pharmacy Laboratory and January 27 to May 9, 1930 Chemistry Laboratory.

Wednesday

9-10	Chm. 103-104 Chemistry Lect.	Phr. 101-102 Pharmacy Rec.	MM 101-102 Mat. Med. Rec.	Phr. 115-116 Business Pharm. Rec.	Phr. 101-102 Pharm. Rec.
10-11	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.
11-12	Chm. 103-104 Chemistry Lect.	Chm. 104-105 Chemistry Lect.	Chm. 103-104 Chemistry Lect.	Chm. 103-104 Chemistry Lect.	Chm. 103-104 Chemistry Lect.
12-1	Chm. 107-108 Newer Remedies Lect.	Chm. 107-108 Newer Remedies Lect.	Chm. 107-108 Newer Remedies Lect.	Chm. 107-108 Newer Remedies Lect.	Chm. 107-108 Newer Remedies Lect.
2-3	Phr. 101-102 Pharm. Rec.	MM 101-102 Mat. Med. Rec.	Phr. 115-116 Business Pharm. Rec.	Phr. 101-102 Pharm. Rec.	Phr. 101-102 Pharm. Rec.
3-4	MM 109-110 Pharm. Sundries Lect.	MM 109-110 Pharm. Sundries Lect.	MM 109-110 Pharm. Sundries Lect.	MM 109-110 Pharm. Sundries Lect.	MM 109-110 Pharm. Sundries Lect.
4-5	Phr. 115-116 Business Pharm. Rec.	Chm. 103-104 Chemistry Rec.	MM 101-102 Mat. Med. Rec.	MM 101-102 Mat. Med. Rec.	Chm. 103-104 Chemistry Rec.
5-6	MM 101-102 Mat. Med. Rec.	Phr. 115-116 Business Pharm. Rec.	Chm. 103-104 Chemistry Rec.	Chm. 103-104 Chemistry Rec.	MM 101-102 Mat. Med. Rec.

Thursday

9-1	Phr. 107-108 Disp. Pharmacy Lab.	Phr. 107-108 Disp. Pharmacy Lab.	Phr. 107-108 Disp. Pharmacy Lab.	Phr. 107-108 Disp. Pharmacy Lab.	Phr. 107-108 Disp. Pharmacy Lab.
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Friday

9-10	Chm. 103-104 Chemistry Rec.	MM 101-102 Mat. Med. Rec.	Chm. 103-104 Chemistry Rec.	Phr. 101-102 Pharm. Rec.	Chm. 103-104 Chemistry Rec.
10-11	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.
11-12	Chm. 103-104 Chemistry Lect.	Chm. 103-104 Chemistry Lect.	Chm. 103-104 Chemistry Lect.	Chm. 103-104 Chemistry Lect.	Chm. 103-104 Chemistry Lect.
12-1	Phr. 115-116 Business Pharm. Lect.	Phr. 115-116 Business Pharm. Lect.	Phr. 115-116 Business Pharm. Lect.	Phr. 115-116 Business Pharm. Lect.	Phr. 115-116 Business Pharm. Lect.
2-3	Chm. 103-104 Chemistry Rec.	Chm. 103-104 Chemistry Rec.	Phr. 101-102 Pharm. Rec.	MM 101-102 Mat. Med. Rec.	Phr. 115-116 Business Pharm. Rec.
3-4	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.
4-5	Chm. 103-104 Chemistry Rec.	Phr. 101-102 Pharm. Rec.	Phr. 101-102 Pharm. Rec.	Chm. 103-104 Chemistry Rec.	MM 101-102 Mat. Med. Rec.
5-6	Phr. 115-116 Jurisprudence Lect.	Phr. 115-116 Jurisprudence Lect.	Phr. 115-116 Jurisprudence Lect.	Phr. 115-116 Jurisprudence Lect.	Phr. 115-116 Jurisprudence Lect.

FIRST-YEAR UNIVERSITY CLASS

<i>Monday</i>			<i>Friday</i>		
9-10	MM 1-2	Botany Rec.	9-10	MM 9-10	Morphology and Histology Lec.
10-1	Phr. 5	Pharmacy Lab.	10-1	MM 9-10	Morphology and Histology Lab.
2-5	Phr. 5	Pharmacy Lab.			
<i>Tuesday</i>			<i>Saturday</i>		
9-10	MM 1-2	Botany Lect.	9-10	Chm. 3-4	Chemistry Lect.
10-11	Coll. 1-2	English	10-11	Chm. 3-4	Chemistry Rec.
11-12	Coll. 3-4	American Government	11-12	Chm. 7-8	Analytical Chem. Rec.
12-1	Phr. 1-2	Pharmacy Rec.	12-1	Chm. 1-2	Physics Rec.
2-3	Phr. 1-2	Pharmacy Lect.	2-3	Chm. 1-2	Physics Lect.
3-4	Phr. 1-2	Pharmacy Rec.	3-4	Coll. 1-2	English
<i>Thursday</i>			4-5	Coll. 3-4	American Government
9-10	Phr. 1-2	Pharmacy Lect.	* On alternate weeks.		
10-1	Chm. 7-8	Chemistry Lab.			
2-3	Chm. 3-4	Chemistry Lect.			
3-4	MM 9-10	Morphology and Histology Lab.			
4-5*	MM 7-8	Posology			

SECOND-YEAR UNIVERSITY CLASS

<i>Monday</i>			<i>Friday</i>		
9-10	MM 57-58	Physiology Rec.	9-10	Chm. 55-56	Chemistry Lect.
10-11	MM 57-58	Physiol. Lect.	10-12	Phr. 59-60	Commercial Pharm.
11-12	Phr. 59-60	Com. Phar. Lect.	12-1	Phr. 51-52	Pharmacy Rec.
12-1	Chm. 51-52	Physics Lect.	2-3	Phr. 51-52	Pharm. Lect.
2-4	MM 55-56	Phar'cog. Lab.	3-4	Coll. 51-52	German
4-5	Coll. 51-52	German			
<i>Wednesday</i>			<i>Saturday</i>		
9-10	Chm. 55-56	Chemistry Lect.	9-1	Phr. 57	Disp. Pharm. Lab.*
10-1	Phr. 54	Pharmacy Lab.			or
2-3	Phr. 51-52	Pharmacy Lect.		Chm. 54	Physics Lab.**
3-4	Chm. 55-56	Chemistry Rec.	2-3	Phr. 51-52	Pharm. Rec.
4-5	Coll. 51-52	German	3-5	Coll. 51-52	German
<i>Thursday</i>			* Disp. Pharmacy Lab. Sept. 28, 1929 to Jan. 18, 1930.		
10-1	MM 61-62	Bacteriology Lab.			
2-5	Chm. 57-58	Chemistry Lab.	**Physics Lab. Feb. 1, 1930 to May 10, 1930.		

THIRD-YEAR UNIVERSITY CLASS

<i>Monday</i>			<i>Friday</i> / <i>Toxicol</i>		
9-10	MM 101-102	Mat. Med. Lect.	9-10	Coll. 105-106	Mathematics
10-11	MM 101-102	Mat. Med. Rec.	10-11	MM ~~101-102~~	Mat. Med. Lect.
11-1	MM 111-112	Phar'cog Lab.	11-12	Chm. 103-104	Chemistry Lect.
2-3	Phr. 109-110	Pharmacy Lect.	12-1	Phr. 115-116	Coml. Pharmacy Lect.
3-4	Coll. 105-106	Mathematics	2-3	Phr. 113	Disp. or Chem. Laboratory*
4-5	Phr. 109-110	Pharmacy Rec.	3-4	or	Disp. or Chem. Laboratory
<i>Tuesday</i>			4-5	Chm. 106	Disp. or Chem. Laboratory
9-1	Phar. 111	Laboratory*	5-6	Phr. 115-116	Jurisprudence Lect.
	or				
2-5	Chm. 106	Laboratory			
<i>Wednesday</i>			<i>Saturday</i>		
9-10	MM 101-102	Mat. Med. Rec.	9-10	Chm. 101-102	Theories of Chem.
10-11	Phr. 109-110	Pharmacy Lect.	10-11	Phr. 111	Laboratory*
11-12	Chm. 103-104	Chemistry Lect.	11-12	or	Laboratory
12-1	Chm. 103-104	Chemistry Rec.	12-1	Chm. 106	Laboratory
2-3	Phr. 111	Laboratory*	2-3	Coll. 105-106	Mathematics
3-4	or	Laboratory	* Pharmacy Lab. Sept. 23 to Dec. 14, 1929; Chemistry Lab. Dec. 16, 1929 to May 10, 1930.		
4-5	Chm. 106	Laboratory			

UNIVERSITY CLASS SENIOR YEAR

Lecture and recitation courses extending throughout the year.

Tuesday

9-10	Quantitative Anal. Lect.
10-11	Food Analysis Lect.
11-12	Bibliography
12-1	Pharmacy Lect.

Wednesday

2-3	Biological Chemistry Lect.
3-4	Physiology Lect.

Laboratory Courses

All hours on Monday, Tuesday, Wednesday, Thursday and Friday from 9-1 and 2-5, excepting those stated for lectures will be devoted to laboratory work.

Analytical Chemistry, Sept. 23-Nov. 15
Food Analysis and Toxicology, Nov. 18-Jan 24.
Pharmacy, Jan. 27-Mar. 21
Pharmacognosy and Taxonomy, Mar. 24-May 16

} 8 weeks each

ACADEMIC CALENDAR

1929

- June 10-Aug. 19. Summer Laboratory Courses.
Sept. 4-6. Registration for first-year candidates.
10-12. Supplementary Examinations.
18-19. Registration for second-, third- and fourth-year candidates.
23. Monday, One Hundredth Session begins. Second-, Third- and Fourth-Year Classes assemble 9 a. m.
24. Tuesday, First-Year Classes assemble 9 a. m.
Oct. 7. Monday, Evening Courses start.
Nov. 5. Tuesday, Election Day, Holiday.
28. Thursday, to November 30, Saturday, inclusive. Thanksgiving Holidays.
Dec. 23. Monday, to

1930

- Jan. 4. Saturday, inclusive, Christmas Holidays.
6. Monday, Sessions resumed.
20-25. Mid-Year Examinations.
20. Monday, Second Semester, Evening Courses start.
Feb. 12. Wednesday, Lincoln's Birthday, Holiday.
22. Saturday, Washington's Birthday, Holiday.
Apr. 7. Monday, All classes. Last day for applying for final examinations with payment of fee.
18-19. Spring Holiday.
May 9. Friday, Evening Courses close.
12-17. Final Examinations, 1st-, 2nd-, 3rd-year College and University Classes.
19-21. Final Examinations, Senior University Class.
28. Wednesday, First- and Second-Year Exercises (Alumni Day).
29. Thursday, College Commencement.
June 4. Tuesday, University Commencement.

SCHEDULE OF EXAMINATIONS

Supplementary Examinations

FIRST-YEAR COLLEGE AND UNIVERSITY CLASSES

1929

- Sept. 10. Tuesday, 9-12 a. m., Pharmacy.
11. Wednesday, 9-12 a. m., Chemistry.
Wednesday, 2-5 p. m., Physics.
12. Thursday, 9-12 a. m., Botany, Zoology.
Thursday, 2-5 p. m., English, American Government.

SECOND-YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 10. Tuesday, 9-12 a. m., Pharmacy.
 Tuesday, 2-5 p. m., Jurisprudence and Accounting.
11. Wednesday, 9-12 a. m., Chemistry.
 Wednesday, 2-5 p. m., Physics.
12. Thursday, 9-12 a. m., Physiology. Biology of Microorganisms
 Thursday, 2-5 p. m., German.

THIRD-YEAR UNIVERSITY CLASS

- Sept. 10. Tuesday, 9-12, Pharmacy.
 Tuesday, 2-5, Dispensing Pharmacy.
11. Wednesday, 9-12, Organic Chemistry.
 Wednesday, 2-5, Theories of Chemistry.

Mid-Year Examinations and Tests

1930

- Jan. 20-25. A schedule of these examinations and tests will be posted on the bulletin boards. Students not in residence should consult the Registrar for information regarding them.

Final Examinations

FIRST-YEAR COLLEGE AND UNIVERSITY CLASSES

- May 13. Tuesday, 9-12, Botany, Posology.
 Tuesday, 2-5, Chemistry
15. Thursday, 9-12, Physics.
 Thursday, 2-5 Pharmacy.
17. Saturday, 9-12, English (Univ.), American Government (Univ.).

SECOND-YEAR COLLEGE AND UNIVERSITY CLASSES

- May 12. Monday, 9-12, Theoretical Pharmacy.
 Monday, 2-5, Physiology, Microbiology (College).
14. Wednesday, 9-12, Chemistry.
 Wednesday, 2-5, Physics.
16. Friday, 9-12, Commerical Pharmacy.
 Friday, 2-5, German (Univ.).

THIRD-YEAR COLLEGE AND UNIVERSITY CLASSES

- May 12. Monday, 9-12, Organic Chemistry.
 Monday, 2-5, Newer Remedies (College).
- May 13. Tuesday, 9-12, Theories of Chemistry (Univ.).
 Tuesday, 2-5, Mathematics (Univ.).
- May 14. Wednesday, 9-12, Theoretical Pharmacy.
 Wednesday, 2-5, Commerical Pharmacy.
- May 16. Friday, 9-12, Materia Medica.
 Friday, 2-5, Toxicology.

FOURTH-YEAR UNIVERSITY CLASS

- May 19. Monday, 9-12, Senior Pharmacy.
Monday, 1-4, Senior, Inorganic Quantitative Analysis.
20. Tuesday, 9-12, Senior, Food Analysis and Toxicology.
21. Wednesday, 9-5, Senior Biological Chemistry.
Wednesday, 9-5 Senior Physiology.

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Columbia University

BULLETIN OF INFORMATION

Thirtieth Series, No. 44

August 3, 1930

ANNOUNCEMENT OF THE

COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1930-1931



113-119 WEST 68TH STREET
NEW YORK

Columbia University Bulletin of Information

Thirtieth Series, No. 44

August 3, 1930

Issued weekly at Columbia University, Morningside heights, New York, N. Y. Entered as second-class matter August 10, 1918, at the Post Office at New York, N. Y., under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

1. Reports of the President and Treasurer to the Trustees.
2. The Catalogue Number, the Directory Number and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C. U. P. 22,000-1930

For special or more detailed information than is given in this Announcement, applicants are requested to address the Registrar of the College, 115 West 68th Street. His office hours are as follows: From September 1, 1930 to May 1, 1931, daily except Saturdays, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a. m. to 4 p. m.; Saturdays, 9:30 a. m. to 12 m.



COLLEGE OF PHARMACY OF THE CITY OF NEW YORK
113-119 WEST SIXTY-EIGHTH STREET

Columbia University

in the City of New York

ANNOUNCEMENT OF THE

COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1930-1931



113-119 WEST 68TH STREET
NEW YORK

This college reserves the right to make such changes in the curriculum, schedule, calendar, and regulations appearing in this Announcement, as circumstances may require.

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1932

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HERMAN WALTER, 1933

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ABRAHAM TAUB, Ph.Ch., B.S., A.M..	<i>Assistant Professor of Physics and Chemistry</i>
MAXWELL KARSHAN, B.S., A.M., Ph.D..	<i>Assistant Professor of Biological Chemistry</i>
ALEITA HOPPING, A.B., Ph.D.....	<i>Associate in Physiology</i>

INSTRUCTORS

LESLIE JAYNE, Ph.Ch., B.S.....	<i>Instructor in Chemistry</i>
PHILIP KERKER, A.B.....	<i>Instructor in Materia Medica</i>

SAUL KAYE, Ph.G.....	<i>Instructor in Pharmacy</i>
FRANK POKORNY, Ph.Ch.....	<i>Instructor in Materia Medica</i>
JOSEPH E. ADAMS, Ph.Ch., B.S.....	<i>Instructor in Materia Medica</i>
WILLIAM KEENAN, Ph.G.....	<i>Instructor in Materia Medica</i>
MILTON D. SEWELL, Ph.G., B.S.....	<i>Instructor in Chemistry</i>
THEODORE FAILMEZGER, Ph.Ch.....	<i>Instructor in Chemistry</i>
JOSEPH P. MIALE, Ph.Ch.....	<i>Instructor in Pharmacy</i>
SAMUEL LIBERMAN, Ph.Ch., B.S.....	<i>Instructor in Chemistry</i>
VICTOR LEWITUS, Ph.G., B.S., A.M.....	<i>Instructor in Materia Medica</i>
RUDOLF HAUCK, Ph.Ch., B.S.....	<i>Instructor in Pharmacy</i>
HERMAN J. AMSTERDAM, Ph.G., A.B., A.M.....	<i>Instructor in Pharmacy</i>
CHARLES H. SOREN, Ph.G., B.S.....	<i>Instructor in Chemistry</i>
EDWARD ANZELMI, Ph.Ch.....	<i>Instructor in Chemistry</i>
MARGUERITE C. DIMLER, Ph.Ch., B.S.....	<i>Instructor in Chemistry</i>
DOMINICK FANELLI, Ph.Ch., B.S.....	<i>Instructor in Pharmacy</i>
HARRY FREDERICK WAGNER, Ph.Ch.....	<i>Instructor in Pharmacy</i>

LECTURERS

ISIDORE NEUSTAEDTER, Phar.D., LL.B..	<i>Lecturer in Pharmaceutical Jurisprudence</i>
GEORGE D. MCJIMSEY, A.M.....	<i>Lecturer in English and American Government</i>
ARTHUR H. INGENHUETT, A.M.....	<i>Lecturer in German</i>

UNIVERSITY OFFICERS OF ADMINISTRATION

FRANK DIEHL FACKENTHAL, LL.D., Litt.D.....	<i>Secretary of the University</i>
ADAM LEROY JONES, Ph.D., Litt.D.....	<i>Director of University Admissions</i>
CHARLES C. WILLIAMSON, Ph.D., Litt.D.....	<i>Director of Libraries</i>
ROGER HOWSON, M.A.....	<i>Librarian</i>
DAVID M. UPDIKE, M.E.....	<i>Superintendent of Buildings and Grounds</i>
CHARLES W. BALLARD, Ph.Ch., A.M., Ph.D..	<i>Librarian of the College of Pharmacy</i>
EDWARD J. GRANT, A.B.....	<i>Registrar of the University</i>
CHARLES S. DANIELSON.....	<i>Bursar of the University</i>
HENRY LEE NORRIS, M.E.....	<i>Director of Works</i>
CLARENCE E. LOVEJOY, A.B.....	<i>Alumni Secretary</i>

COLUMBIA UNIVERSITY

Columbia University was founded in 1754 as King's College by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the College of Physicians and Surgeons with courses leading to the degree of Doctor of Medicine; the School of Engineering, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; the School of Library Service, with courses leading to the degrees of Bachelor of Science and Master of Science; Seth Low Junior College offering two and three years of collegiate work in preparation for admission to professional schools or to more advanced work in liberal arts and sciences in Columbia University; the non-professional Graduate Faculties of Political Science, Philosophy, and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy.

In addition to these schools and faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; the College of Pharmacy of the City of New York, with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science and Doctor of Pharmacy; St. Stephen's College, Annandale, New York, an undergraduate college for men with courses leading to the degree of Bachelor of Arts; and the Union Theological Seminary, whose faculty conducts certain University work leading to the degree of Master of Arts.

The University maintains three sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree. Home Study courses are also offered to persons who are unable to take work in residence.

ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma, is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standard of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the Announcement of each school will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The Announcements of each college or school, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

The Announcement of each school contains a schedule of fees and expenses for the courses in that school.

LIBRARY

The Library of the University contains about 1,166,600 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture rooms and laboratories. The Avery

Architectural Library, the law library, the Ella Weed Library of Barnard College, Teachers College library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

RESIDENCE HALLS

There are four Residence Halls for men on South Field: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Field, with accommodations of room and board for 360 students in the graduate and professional schools is a Residence Hall for women.

All the University Residence Halls, for both men and women, are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the Halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

INTERNATIONAL HOUSE

International House, 500 Riverside Drive, the home of the Inter-Collegiate Cosmopolitan Club, is maintained for men and women students from foreign lands and a limited number of American students. It accommodates 175 women and 325 men. It contains attractive restaurants and social rooms. Fees for the academic year range from \$185 to \$325. Inquiries should be addressed to the Committee on Admissions, International House, 500 Riverside Drive.

THE RESIDENCE BUREAU

Columbia University maintains a Residence Bureau to protect the students' interests and to assist students in finding the best accommodations obtainable in the University neighborhood. There is no charge made for this service. The Bureau will furnish upon request addresses of rooms which have been inspected. The University is in no way responsible for any private lodging house. Students desiring information regarding rooms outside of University Halls should address the Residence Bureau, Room M, Earl Hall, Columbia University.

DINING FACILITIES

The University maintains a dining room for women students in Johnson Hall and a dining room and a grillroom for men students in John Jay Hall. In addition, the University maintains the following dining rooms (cafeteria service): the Commons (men and women), University Hall; Barnard Hall Lunch Room (women), Barnard Hall; Teachers College Cafeteria (men and women), Grace Dodge Hall, 121st Street. All these dining rooms are under expert supervision and furnish wholesome food at moderate rates.

The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the University Medical Officer. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.

EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the offices of the Director of Earl Hall (Men's Residence Halls Office); the Residence Bureau; the Secretary of Appointments; and the Meeting Room. On the upper floor are the offices of the Chaplain of the University and his staff, and also an auditorium seating 400 people which is available for student receptions and dances. The lower floor, entrance from Broadway, is occupied by the offices of the University Medical Officer.

MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Medical Officer.

THE COLLEGE OF PHARMACY

IMPORTANT ANNOUNCEMENT

STATE BOARD REQUIREMENTS

It has been agreed among all the important state boards of pharmacy in the United States, with the exception of New York, that the degree of Graduate in Pharmacy, awarded for a course of less than four years will not be accepted from graduates matriculating after the year 1932. In certain of the states there is an additional demand that the college instruction be spread over five days of the week. It follows that students matriculating in the pharmacy schools of this state must pursue some other course than the Ph.G. course of three years, if they wish their diplomas to be recognized in other states. Our University Course of four years leading to the degree of Bachelor of Science in Pharmacy (see page 17) is more than equivalent to the four-year course required by other states, as stated above, our course provides 1056 hours annually of instruction for four years of 32 weeks each, the work occupying five days of each week.

GENERAL STATEMENT

The one hundred and first annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 22, 1930.

In May, 1930, our first graduates of the reorganized and extended three-year College Course received their diplomas. In the past, our two-year College Course, while giving thorough instruction in pharmacy, was not considered as of sufficient scope to be entitled to University standing, and its diplomas were issued by the College, independently. With the extension of the work to three years, based on entrance qualifications equivalent to those for admission to Columbia College, this deficiency is eliminated, and the diplomas of this course will hereafter bear the University name.

THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the city. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus, and Amsterdam Avenue lines connect with nearly all surface lines in the city. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College building was erected in 1894, after a study of the principal buildings of the kind in this country and abroad. So great has been the increase in the applications for admission that it was found necessary in 1923 to provide greater accommodations in the form of an additional connecting building.

In its planning, two principal objects were kept in view: first, provision for a large increase in the membership of the first and second-year classes; second, greatly increased and improved facilities for the work of the higher classes.

In connection with the latter, extensive provision has been made for research work, by both Faculty and special students. Our library has also been greatly improved, the entire lower floor of the new building having been reserved for its accommodation.

THE LIBRARY

The library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy.

Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the general Library of Columbia University, on Morningside Heights, libraries of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great library of the Surgeon-General's office at Washington.

The library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library copies of the textbooks in use by the College may not be removed from the library.

INFORMATION BUREAU

The Information Bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the Bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service.

1. Telephone inquiries will be answered without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the Information Bureau, Trafalgar 1733, and will receive information immediately if it is accessible.

2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.

3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.

4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical, or botanical periodicals will be prepared for those desiring to pay for such service.

5. As in the past, all visitors to the library, desiring to do their own research work, will be given courteous attention.

EMPLOYMENT FOR STUDENTS

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

Any student wishing to secure employment should, upon entering the College, communicate with the Registrar.

Within easy reach of the College are some three thousand pharmacies, where students who have had some experience in pharmacy may obtain employment with salary sufficient to pay the whole or a large part of their expenses while attending College.

APPLICATION FOR ADMISSION

Every candidate for admission to the College of Pharmacy is required to file with the Registrar of the College a personal application and a transcript of his high school record, blank forms for which can be had upon application. He is also required to file an approval of his application for a pharmacy student qualifying certificate *before he can be accepted*, and he must secure the apprentice license before his matriculation can be considered complete.

NEW YORK STATE QUALIFYING CERTIFICATE

To be entitled to a pharmacy student qualifying certificate, the applicant must be at least seventeen years of age, and must have been graduated from an accredited four-year high school course, or have covered courses acceptable to the Department of Education as a full equivalent thereof. A high school or other secondary school course of study will not be considered acceptable unless the applicant has received the school diploma, and unless his or her record includes

English, four years

Science, two years.

Mathematics, two years.

Foreign language, two years.

History, one year.

Physiology, one-half year (unless the two years of science include biology or general science).

Civics, one-half year.

Sufficient electives to make up a full four-year course aggregating 15 units.

The fulfillment of these requirements must be officially guaranteed by a qualifying certificate issued by the New York State Department of Education. If the applicant is entitled to receive the certificate, he will be so notified by letter; which letter should be presented to the Registrar of the College of Pharmacy. Blank forms for making application for the certificate may be secured either from the Registrar's office or from the Department of Education at Albany.

APPRENTICE LICENSE

The apprentice license should be applied for when the candidate commences his experience in a pharmacy or drug store. Those who have had no experience before entering the pharmacy school, or whose experience has been in a drug store or pharmacy outside of New York State, will make application for their licenses through the school during the first week of the course, the Registrar acting as "preceptor." Blank forms for making application for the apprentice license may be secured either from the Registrar's office or from the Board of Pharmacy at Albany, N. Y.

HEALTH CERTIFICATE

All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. Appropriate blanks are furnished by the Registrar of the College.

COURSES OFFERED

Two regular courses of study are offered, known respectively as the College Course and the University Course, and three evening courses in the Departments of Materia, Medica, Pharmacy, and Chemistry.

THE COLLEGE COURSE

This course now comprises three full years of professional work, and is designed to fit the graduate for meeting the educational requirements of the Boards of Pharmacy of most of the states. The fundamental idea of this increase in time is generally accepted as being that of improving the quality of the work done, rather than of providing a large amount of additional work, this improvement applying particularly to the practical features of the course. The precise object of a course leading to the degree of Graduate in Pharmacy being to prepare such graduates for meeting the conditions of service in a retail pharmacy, the greater portion of the increased time has been assigned to the Department of Pharmacy, and to those features of the work of the other departments which are directly contributory thereto. After a careful study of the requirements, we have concluded that the time officially assigned for this course is insufficient, and we have added 128 hours for laboratory work in commercial and dispensing pharmacy.

The accomplishment of the better training that is sought necessarily calls for the introduction of new topics in the existing syllabi, and we call special attention to the following items.

We have always regarded a course in materia medica as being incomplete that did not include instruction in the apparatus, equipment and appliances included under the title of sick-room supplies, but no opportunity has heretofore offered for practical instruction of this kind. In our reorganized course, 32 hours are devoted to explaining and illustrating the nature and use of articles of this class. Although technically pertaining to the subject of materia medica, this instruction forms an important part of the students' preparation in commercial pharmacy.

Another qualification that we deem requisite for every well-equipped pharma-

cist is a general knowledge of the nature and effects of bacteria in their relations with pharmacal practice. While we do not regard the conduct of a bacteriological laboratory as pertaining to the business of the ordinary pharmacist, we regard as necessary some knowledge of the principles of bacterial decomposition, sterilization and immunization, and 64 hours have been assigned for instruction in those subjects. While this subject, relating to the activities of plants, pertains technically to botany, it also has close relations with practical pharmacy.

THE UNIVERSITY COURSE

The Department of Health of the City of New York has placed the Bachelor of Science in Pharmacy, graduating from this course, in the position of being eligible to conduct a bacteriological laboratory or to fill similar positions.

The attention of prospective students is directed to the increasing call for graduates of advanced courses, to fill other professional positions. The general application of Federal, state, and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which formerly were often left to incompetent and irresponsible employees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

To meet these higher requirements, three-, four- and six-year courses of study, leading respectively to the degrees of Pharmaceutical Chemist (Ph.Ch.), Bachelor of Science in Pharmacy (B.S. in Phar.) and Doctor of Pharmacy have been established.

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. To members of the University Class only are open certain of the University privileges.
2. The University Class attends on five days weekly, and the course includes regular work in academic subjects, conducted by special instructors supplied by the Dean of the Faculty of Columbia College, this work receiving full credit from the University toward the baccalaureate degree.
3. For the University Class, the College provides a thorough course of laboratory instruction in advanced chemistry, pharmacy, and physics and special courses in microscopy and bacteriology, consisting of both theoretical and laboratory instruction.
4. Our graduate course, leading to the degree of Doctor of Pharmacy, is open only to graduates of the four-year University Course.
5. Not only are the degrees of Pharmaceutical Chemist and Bachelor of Science recognized as of higher rank than that of Graduate in Pharmacy, but the three- and four-year courses for which they are awarded qualify its recipients for many lines of pharmaceutical work that are not open to graduates from the College Course.

GRADUATE COURSE

This course, leading to the degree of Doctor of Pharmacy, is open to graduates with the baccalaureate degree, conferred by this college or by other schools

of pharmacy maintaining equivalent courses of study. The course consists of two full years of study in residence. Thirty hours weekly are occupied in research work in the department representing the major subjects, and three hours weekly in each of the other two departments. For this session, not more than two students will be matriculated in each of the three departments.

ENTRANCE REQUIREMENTS

COLLEGE COURSE

To be eligible for admission, the candidate must be at least seventeen years of age, and must meet the requirements for the pharmacy student qualifying certificate, as outlined on page 15.

THE UNIVERSITY COURSES

These are courses of full academic years (September to June) leading to graduation with the other departments of the University, and to the degree of Pharmaceutical Chemist, conferred by the University, at the end of the third year, and to that of Bachelor of Science in Pharmacy at the end of the fourth. It is to be noted here that for the session of 1930-1931 a limited number of fourth-year students can be accommodated.

The requirements for admission to this course are the same as those for Columbia College. The student must be seventeen years of age, must have graduated from a high school within or outside of the state of New York that is accredited by the Education Department of this state, and must present a pharmacy student qualifying certificate from the Education Department of this state, as outlined on page 15.

Applications for admission to the 1930-1931 session of the University Course should be filed on or before September 11, 1930.

Under this course, two programs are offered, one leading to the degree of Pharmaceutical Chemist, and one to the degree of Bachelor of Science in Pharmacy.

The evidence of adequate preparation for admission to the University Course in the subjects required on the part of candidates who have not completed a year of college work, *includes both examination and school records.*

The subjects which candidates may offer in fulfillment of these requirements are outlined below. (A "unit" implies the study of a subject for a time equivalent to five hours weekly for one year.)

PRESCRIBED SUBJECTS

All candidates *must* offer:

ENGLISH	{	1 (grammar and composition)	2 units
		2 (literature)	1 unit
MATHEMATICS	{	ai (algebra to quadratics)	1 unit
		aii (quadratics and beyond).	1 unit
		c (plane geometry)	1 unit

EITHER

(1) Latin¹ 4 units

¹ Greek, 3 units, may be substituted for Latin, in which case 6 elective units must be offered.

OR

(2)	{	Latin, Greek, French, German, Spanish or Italian 3	} 5 units
		Physics or chemistry 1	
		History 1	

ELECTIVE SUBJECTS, to make up 15 units 4 or 5 units

ELECTIVE SUBJECTS

Group I

The candidate may offer any of the following subjects not included among his prescribed subjects, without other restriction than that to offer an advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject.

Biology—See Zoölogy

The English Bible	1 unit
Elementary Greek	2 or 3 units
Elementary history	1 or 2 units
Drawing (freehand or mechanical)	1 unit
Music	1 unit
Intermediate French	1 unit
Intermediate German	1 unit
Intermediate Italian	1 unit
Intermediate Spanish	1 unit
Advanced French	1 unit
Advanced German	1 unit
Social science	1 unit
Advanced Spanish	1 unit
Advanced mathematics (College)	½, 1 or 1½ units
And in the case of candidates not offering 4 units in Latin:	
Elementary Latin	2 or 3 units

Group II

The candidate may offer not more than 4 units in all from the four subjects following:

Elementary French	2 units
Elementary German	2 units
Elementary Italian	2 units
Elementary Spanish	2 units

Group III

The candidate may offer not more than 3 units in all from the six subjects following:

Botany	1 unit
Chemistry	1 unit
Physics	1 unit
Physiography	1 unit
Shopwork	1 unit
Zoölogy	1 unit

NEW METHOD

Under the "new method," candidates whose school and character records are entirely satisfactory, may meet the examination requirements by means of a psychological test. The school course must include three units in English, three in mathematics (elementary and intermediate algebra and plane geometry), and at least three units in a foreign language, ancient or modern. It must have been concerned primarily with languages, science, mathematics, and history.

OLD METHOD

Under the "old method," the examination requirements for admission may be satisfied by any one of the three following means, or any approved combination thereof.

1. By the examinations of the College Entrance Board, held in June of each year at Columbia University and at about 150 other educational centers in the United States and abroad.

2. By the examinations conducted at Columbia University in September of each year, by the Director of University Admissions.

(The examination grades in connection with the above two methods are interpreted in the light of the record which students have made in school.)

3. By the examinations given in the high schools by the Education Department of the state of New York to students who have satisfactorily completed certain courses in these high schools. In these examinations, seventy-five per cent will ordinarily be regarded as the lowest passing mark.

For candidates qualifying for admission on the basis of examinations before Columbia University or the College Entrance Board, two methods are open:

- a. *Examination in Fifteen Units.* A candidate may offer examinations in fifteen units as evidence of his preparation in secondary school subjects.

- b. *Four-Examination Plan.* A candidate who has completed a satisfactory secondary school course with a high degree of proficiency may, by special permission, satisfy the examination requirement by means of "comprehensive examinations" in not less than four subjects including those prescribed for admission.

Candidates entering by the old method are required to take the psychological examination for purposes of record only.

Those contemplating the September, 1930 examinations, must file their applications with the Secretary of Columbia University on or before September 8, 1930. Those who contemplate taking the June, 1931 examinations, must file their applications with the Secretary of the College Entrance Board at 431 West 117th Street, New York, N. Y., early in May. Blank forms of application for either series of examinations may be secured from the respective secretaries.

Every candidate for admission to the University Course should secure a copy of the current Bulletin on Entrance Examinations and Admission which may be had upon application to the Secretary of the University.

ADMISSION TO ADVANCED STANDING

Candidates may be admitted to advanced standing only upon a satisfactory record from their school of previous residence. Provided they are eligible for the pharmacy student qualifying certificate required by the New York State Department of Education, candidates who have completed, without condition, corresponding courses in a pharmacy school registered by the State Education Department, are eligible for admission to the second, third, or fourth years, respectively.

FEES

The fees to be paid by students are subject to change at any time in the discretion of the Trustees. The following schedule is in force for the 1930-1931 session or for students accepted in any of the regular courses leading to degrees.

	College Course	University Course
<i>First, Second, and Third Years:</i>		
Registration fee	\$5.00	\$5.00
Student activities	10.00	10.00
Breakage deposit	10.00	10.00
Examination fee	10.00	10.00
Tuition	250.00	300.00
Laboratory fees	45.00	60.00
<i>Fourth Year:</i>		
Registration fee		5.00
Breakage deposit		10.00
Examination fee		15.00
Tuition		300.00
Laboratory fees		60.00
<i>Fifth and Sixth Years, Graduate Course</i>		
Registration fee		5.00
Breakage deposit		25.00
Examination fee		20.00
Tuition		350.00
Laboratory fees		60.00

Special Courses. Students desiring to pursue individual courses as special students will be required to pay at the rate of \$7.50 per point.

Summer Courses. The fee for any laboratory course is \$25 for first-, second- and third-year work in the College Course. In the University Course, the fee is \$25 for first- and second-year work and \$50 for third- and fourth-year work.

Evening Courses. The fees for the various evening courses will be found among the descriptions of these courses, beginning on page 46.

Books and Supplies. It is estimated that an expenditure of \$50 will cover the cost of the textbooks and necessary apparatus required for the entire College Course, and of \$75 for the entire University Course for the Ph.Ch. degree. The heaviest expenditure in all cases will be in the first year; many of the required reference works being used also in subsequent years.

METHODS OF PAYMENT

Regular Courses

One of three methods for the payment of the tuition fee for the year may be elected by the candidate, as indicated below. In this connection, it is to be noted that all are required to pay the registration fee, the breakage deposit, the student activities fee and the first installment of the tuition fee at the time of registration. The dates for registration in the various classes will be found in the academic calendar on page 71.

A. Pay in full at the time of registration.

B. Pay one half of the tuition fee at the time of registration, and the balance on or before January 5, 1931. Under this arrangement, an additional \$3 must be added to the first installment.

C. Pay one third of the tuition fee at the time of registration; one third on or before December 1, 1930, and the balance on or before February 9, 1931. Under this arrangement, an additional \$5.00 must be added to the first installment.

A student, electing plan B or C makes himself liable to suspension from further attendance if he fails to meet the payments when due.

Second-, third- and fourth-year students, who register after the last day set for their registration (see Academic Calendar) are required to pay an additional fee of \$5.00 for late registration.

Examination Fees. Dates upon which fees for examination in course are required will be found in the Academic Calendar.

The rate for reexamination is on the basis of \$5 for each subject in September and \$10 for the entire series in the spring.

Rebates. The registration and student activities fees shall not be subject to rebate.

In the case of the total withdrawal of a student from the College, a partial return of the tuition fee may be authorized by the Trustees, but in no case shall more than two thirds of the total charge for that year be returned.

Special, Summer, and Evening Courses. Students registering in any of these courses are required to pay the tuition and other fees *in advance*.

METHOD OF INSTRUCTION

The instruction of each class during the first and second years of the College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College. During the third year, an additional half-day must be devoted to work in the pharmacy laboratory. All students who can do so are urged to devote their third year wholly to College work.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction

given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.

REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the bulletin boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

AUTHORITY OF THE DEAN

The Dean is the executive officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

DEAN'S OFFICE HOURS

Ordinarily the Dean will be found in his office at the hours given below. As he is frequently called out of the city, it is advisable to make important appointments by telephone.

During College Term

Tuesday at 2 p. m.

Wednesday, to Saturday (inclusive) at 10 a. m.

During Summer Vacation

Tuesday, Thursday, and Saturday at 10 a. m.

REQUIREMENTS FOR ALL REGULAR STUDENTS

Attendance

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third- and fourth-year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during ninety per cent of the hours of instruction in each year, and during eighty per cent of those of each exercise. The lectures and recitations in a subject constitute one "exercise." For being late twice at daily opening the student will be charged with one absence. For failure to comply with this condition, the student will forfeit the privilege of presenting himself for examination.

Computation of attendance records will be based upon the total number of hours assigned a given course (page 28) during the academic year.

Advancement in Classes

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the

passing mark being seventy-five per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations—but *not those* who have failed, without excuse, to present themselves thereat—will be allowed to undergo a single supplementary examination to be held as announced on page 71, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course of that year, provided, however, that such students may be refused readmission if, in the judgment of the Faculty, they are not qualified to be students of this college. A student who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer, except in special cases.

By a regulation of the State Education Department, students failing in more than one subject must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 1, 1930.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examinations on paying an additional fee of \$10 and complying with all other requirements.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination.

All students must obtain a rating of seventy-five per cent or higher in every department in which they may be examined. Any student failing in one or more departments, but not in laboratory courses, may present himself for re-examination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without reexamination in the other departments. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 46.

Students of the third-year University Class failing in a laboratory course of a single department may be permitted to remove this failure during the Summer Laboratory Session. Students of this class failing in the laboratory courses of more than one department will be required to repeat in full those courses in which they fail, during the next regular session.

PRIZES AND SCHOLARSHIPS

The College reserves the right to withhold the award of any scholarship or prize, if in its opinion, no candidate has exhibited qualifications justifying the award.

HONOR ROLL. The College Classes and the University Classes will have separate and distinct honor rolls.

For the College Classes, the roll is limited to thirteen candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the three departments of Pharmacy, Materia Medica, and Chemistry will be the basis of computation for the general average.

For the University Classes, the roll is limited to three candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the four departments of Pharmacy, Materia Medica, Chemistry, and the Cultural Courses will be the basis of computation for the general average.

TRUSTEES' PRIZES. The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100 each, for the highest rating secured in competitive examination in the three departments of Chemistry, Pharmacy, and Materia Medica. These competitive examinations are open to those members of the graduating class who have attained positions on the honor roll of the College Course. (If the number of these honor students be less than thirteen, a sufficient number of graduates having the next highest averages to make that number will be permitted to compete for these prizes.) A certificate, stating the honor for which the prize has been awarded, is also presented to each of the recipients,

ALUMNI ASSOCIATION PRIZES. The Alumni Fund of the College of Pharmacy provides annually for a gold, a silver, and a bronze medal to be presented at Commencement to the three students having respectively attained the first, second, and third highest standings in all branches taught during the third year of the College Course.

This fund also provides for five additional prizes awarded annually on Alumni Day to members of the first- and second-year classes of the College Course, as follows: *Torsion Balance*, awarded to that second-year student who has secured the highest standing during the work of the two years; a copy of *The United States Dispensary* to that student who has secured the highest standing during the work of the second year; a copy of Rusby, Bliss, and Ballard, *Properties of Drugs* awarded to that student securing the second highest standing in the work of the second year; a copy of Arny's *Principles of Pharmacy* to that student who has secured the highest standing in the work of the first year, and a copy of Sadtler, Coblentz, and Hostmann's *Pharmaceutical Chemistry* to that student who has secured the second highest standing in the work of the first year.

In the event that the winner of the *Torsion Balance* has the highest record for

the second year, then *The United States Dispensatory* and the *Materia Medica* will be awarded respectively to the second and third member of the honor roll.

MAX J. BREITENBACH PRIZE. A cash prize of \$200, accompanied by a certificate, offered annually for the highest proficiency in the junior (third year) University Class. This prize is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach, for many years a devoted Trustee.

KAPPA PSI PRIZE. The Gamma Chapter of the Kappa Psi Fraternity offers annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

LILLIAN LEITERMAN PRIZE. A gold medal, offered annually by Miss Lillian Leiterman (1911), to that woman member of the graduating class who has maintained the highest standing throughout the entire three years of the College Course.

J. LEON LASCOFF PRIZES. Life membership in the American Pharmaceutical Association and in a state pharmaceutical association, offered annually by Trustee J. Leon Lascoff to the two members of the graduating class in the College Course who have been prominent in student activities, who have maintained a high degree of general scholarship, and who are adjudged by the Faculty to be worthy of such awards.

TRUSTEES' SCHOLARSHIPS. To the four students who maintain the highest proficiency in their respective classes during the first and second years of the College and University Courses, the Board of Trustees of the College annually awards scholarships for one year's tuition, to be applied to the following session of their respective courses.

GEORGE J. SEABURY SCHOLARSHIP. This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, Mr. George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the senior (fourth) year of the University Course, of that member of this class who has maintained the highest standing during the three years, provided, however, that such student will not receive both this scholarship and the Max J. Breitenbach prize.

ISAAC PLAUT FELLOWSHIP. This fellowship for the encouragement of graduate study and original research was founded by Mr. Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this fellowship must have secured the degree of B.S. in Pharmacy at this college, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this college who will have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

The fellow will be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He will attend a

foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and will pursue a course of study approved by the Faculty. At the close of his incumbency he will present to the Faculty a written report of his work.

The fellowship payment will be made in three equal installments, one on June 15, one on November 1, and one on March 1, provided that the fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he will forfeit all further privileges and emoluments conferred upon him by his appointment to the fellowship, and the Trustees of the College of Pharmacy may declare the fellowship vacant.

Note. Competition for the Kappa Psi Prize, the Seabury Scholarship and the Plaut Fellowship is open only to those students who take their entire course at this college.

LOUIS SPENCER LEVY RESEARCH SCHOLARSHIP. This scholarship, established in 1928 for a period of two years by Mr. Louis Spencer Levy, will, through his continued generosity, be available for the two years beginning with the session of 1930-1931. It affords free tuition for two years to that B.S. or Ph.Ch. who is deemed qualified by the Faculty to do research work and who will devote the greater portion of his time to investigations of the effect and usefulness of ultra-violet radiations in the field of essential oils and perfume materials, this work to be done under the direction of the head of the Department of Pharmacy.

E. R. SQUIBB PRIZE. This is an annual cash prize of \$100, offered by Messrs. E. R. Squibb & Sons, in memory of Dr. E. R. Squibb. It is awarded to that Graduate in Pharmacy who exhibits the greatest proficiency in analytical chemistry during his third year, as determined by the laboratory records.

LOUIS DOHME PRIZE. This is an annual cash prize of \$100, founded by Mr. Ernest Stauffen, in memory of Mr. Louis Dohme. It is awarded to that Graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopœia and National Formulary, as determined by the laboratory records and examinations.

JOSEPH WEINSTEIN PRIZE. This prize consists of a compound microscope and is established by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that Graduate in Pharmacy who has exhibited the greatest proficiency in analytical chemistry during the three years, as determined by the laboratory records, and who has not secured any other prize.

ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that Graduate in Pharmacy who has obtained the highest general average in practical laboratory work during the third year.

LEHN and FINK PRIZE. This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the Graduate in Pharmacy attaining the highest standing at the examinations in pharmacy.

WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that member of the graduating class who has attained the highest general average in the practical laboratory work of the Department of Pharmacy during the three years of the College Course.

GERMAN APOTHECARY'S ASSOCIATION PRIZE. In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited during the final year of the College Course the greatest proficiency in the compounding of prescriptions.

OLSHANSKY MEMORIAL MEDAL. This is a gold medal, founded by the students of this college in attendance upon the session of 1923-1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in the final year of the College Course in the subject of dispensing pharmacy.

DIEKMAN PRIZE. This prize was founded in 1930 by the Dante Circle, in honor of Dr. George C. Diekman, Professor Emeritus of Pharmacy. It consists of a gold charm, and is awarded to that member of the graduating class who has attained the highest average in the courses in theoretical pharmacy throughout the three years of the College Course.

NEW YORK STATE PHARMACEUTICAL ASSOCIATION PRIZE. A year's membership offered by the Association to a member of the Honor Roll not winning any other prize.

SYNOPSIS OF STUDIES FOR THE SESSION OF 1930-1931

COLLEGE COURSE

First Year

		Class Hours	Laboratory Hours	Points
<i>Chm.</i> 1-2	General physics	2	0	4
<i>Chm.</i> 3-4	Inorganic chemistry	3 ½	0	7
<i>Chm.</i> 5-6	Analytical chemistry (qualitative)	½	3	4
<i>MM</i> 1-2	Botany	2	0	4
<i>MM</i> 3-4	Botany laboratory	1	4	6
<i>MM</i> 5-6	Posology	1	0	2
<i>Phr.</i> 1-2	Theory of pharmacy	3	0	6
<i>Phr.</i> 3-4	Manufacturing pharmacy	1	3	5

Second Year

<i>Chm.</i> 51-52	General physics	1	0	2
<i>Chm.</i> 55-56	Inorganic chemistry	3	0	6
<i>Chm.</i> 59-60	Analytical chemistry (acidic ions and volumetric)	0	3	3
<i>MM</i> 53-54	Pharmacognosy	0	3	3
<i>MM</i> 57-58	Human physiology and hygiene	2	0	4
<i>MM</i> 59-60	Microbiology	1	1	3
<i>Phr.</i> 51-52	Theory of pharmacy	1 ½	0	3
<i>Phr.</i> 53-54	Pharmaceutical Latin	1 ½	0	3
<i>Phr.</i> 55-56	Dispensing pharmacy	1	3	5 2 1/2
<i>Phr.</i> 61-62	Commercial pharmacy	3 1	0 2	4 6
<i>Ph</i> 56	<i>mfg-phar</i>	1	3	2 1/2

Third Year

<i>Chm. 103-104</i>	Organic chemistry	3	0	6
<i>Chm. 107-108</i>	Newer remedies	2	0	4
<i>Chm. 109 (110)</i>	Analytical chemistry (advanced volumetric and pharmacopœial assaying)	0	6*	3
<i>MM 101-102</i>	Materia medica	3	0	6
<i>MM 103-104</i>	Toxicology	1	0	2
<i>MM 109-110</i>	Pharmaceutical sundries	1	0	2
<i>Phr. 101-102</i>	Theoretical pharmacy	3	0	6
<i>Phr. 103-104</i>	Theoretical dispensing pharmacy	2	0	4
<i>Phr. 105</i>	Manufacturing pharmacy	0	6*	3
<i>Phr. 107-108</i>	Dispensing pharmacy	0	4	4
<i>Phr. 109-110</i>	Pharmaceutical jurisprudence and business pharmacy	3	0	6

UNIVERSITY COURSE

First Year

		Class Hours	Laboratory Hours	Points
<i>Chm. 1-2</i>	General physics	2	0	4
<i>Chm. 3-4</i>	Inorganic chemistry	3 ½	0	7
<i>Chm. 7-8</i>	Analytical chemistry (qualitative)	½	3	4
<i>MM 1-2</i>	Botany	2	0	4
<i>MM 7-8</i>	Posology	½	0	1
<i>MM 9-10</i>	Plant morphology and histology	1	4 ½	6 ½
<i>Phr. 1-2</i>	Theory of pharmacy	3	0	6
<i>Phr. 3-4</i>	Manufacturing pharmacy	1	3	5
<i>Phr. 5-6</i>	Dispensing pharmacy	½	2	3
<i>Coll. 1-2</i>	English	3	0	6
<i>Coll. 3-4</i>	American government	3	0	6

Second Year

<i>Chm. 51-52</i>	General physics	1	0	2
<i>Chm. 54</i>	Practical physics	0	4†	2
<i>Chm. 55-56</i>	Inorganic chemistry	3	0	6
<i>Chm. 57-58</i>	Analytical chemistry (acidic ions and volumetric)	0	3	3
<i>MM 55-56</i>	Macroscopic pharmacognosy	0	2	2
<i>MM 57-58</i>	Human physiology and hygiene	2	0	4
<i>MM 61-62</i>	Bacteriology	1	2	4
<i>Phr. 51-52</i>	Theory of pharmacy	1 ½	0	3
<i>Phr. 53-54</i>	Pharmaceutical Latin	1 ½	0	3
<i>Phr. 57-58</i>	Dispensing pharmacy	1	3	5
<i>Phr. 59</i>	Manufacturing pharmacy	½†	3 ½†	2 ½
<i>Phr. 61-62</i>	Commercial pharmacy	¾	¾	4
<i>Coll. 51-52</i>	German	5	0	10

* During 16 weeks.

† During 16 weeks.

Third Year

<i>Chm. 101-102</i>	Theories of chemistry	1	0	2
<i>Chm. 103-104</i>	Organic chemistry	3	0	6
<i>Chm. 106</i>	Analytical chemistry (advanced volumetric, pharmacopœial testing and urine analysis)	0	16 ‡	10
<i>MM 101-102</i>	Materia medica	3	0	6
<i>MM 103-104</i>	Toxicology	1	0	2
<i>MM 111-112</i>	Microscopic pharmacognosy	½	1 ½	2 ½
<i>Phr. 101-102</i>	Theoretical pharmacy	2	0	4
<i>Phr. 109-110</i>	Pharmaceutical jurisprudence and business pharmacy	3	0	6
<i>Phr. 111</i>	Manufacturing pharmacy	0	14 §	5
<i>Phr. 113</i>	Practical dispensing pharmacy	0	3	2
<i>Coll. 101-102</i>	Mathematics	3	0	6

Fourth Year

<i>Chm. 151-152</i>	Inorganic quantitative analysis	1	29 ¶	10
<i>Chm. 153-154</i>	Food analysis and toxicology	1	29 ¶	10
<i>Chm. 155-156</i>	Biological chemistry	1	0	2
<i>Chm. 157-158</i>	Chemical bibliography	1	0	2
<i>MM 152</i>	Applied pharmacognosy	2	21 ¶	6 ½
<i>MM 154</i>	Botanical taxonomy	0	6 ¶	1 ½
<i>MM 155-156</i>	Human physiology	1	0	2
<i>Phr. 151-152</i>	Advanced pharmacy	1	0	2
<i>Phr. 153-154</i>	Pharmaceutical assaying	0	7 ¶	7

‡ During 19 weeks.

§ During 12 weeks.

|| During 10 weeks.

¶ During 8 weeks.

COURSES OF INSTRUCTION

CHEMISTRY

Chemistry 1-2—General physics (for University freshmen and first-year College Students). Lectures and recitations 2 hours, 4 points. Professor A. TAUB and instructors.

This course is so arranged as to emphasize those phases which have a direct bearing upon chemistry and pharmacy. After a consideration of the general properties of matter and the elements of mechanics a number of lectures are devoted to the discussion of the kinetic molecular theory and to wave motion. This is then followed by the consideration of chapters on sound and heat.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of physical apparatus.

Textbook: Stewart, *College Physics*.

Chemistry 3-4—General inorganic chemistry (for University freshmen and first-year College Students). Lectures and recitations 3½ hours, 7 points. Professors ARNY and A. TAUB and instructors.

This course, the beginning of consecutive instruction in chemistry covering three years, is given to the first-year students of both the College and the University Classes. It opens with a careful consideration of the fundamental principles of chemistry, special attention being given to the modern theories concerning valence, chemical equilibrium, oxidation and reduction and atomic structure.

Exercises in writing and calculating chemical equations and work on problems in chemical arithmetic are given in special quiz periods devoted exclusively to these important subjects.

On the side of descriptive chemistry, the non-metals and their compounds are discussed from their cultural, technical, and pharmaceutical viewpoints.

Textbooks: Deming, *General Chemistry*, second edition; *U. S. Pharmacopæia*.

Chemistry 5-6—Analytical chemistry (first-year College Students). Recitations ½ and laboratory 3 hours, 4 points. Professors MACSATA, SCHAEFER and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized and separations and identifications of group members are performed. Finally, all facts required by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on unknown samples.

Textbook: Schaefer & Bliss, *Qualitative Chemical Analysis*.

Chemistry 7-8—Analytical chemistry (for University freshmen). Recitations ½ hour and laboratory 3 hours, 4 points. Professor KASSNER and instructors.

The student will first be made familiar with laboratory processes by means of a course of experiments in general chemistry, involving the isolation of certain elements, a study of their physical and chemical properties, and of their principal compounds. Simple laws and phenomena will be

explained to the student in the course of this work. In this way, experience in manipulation and a true understanding of the subject will be obtained.

This preliminary course leads to a systematic course in qualitative analysis and during the first year the reactions of the basic ions are studied. The student is taught the separation and identification of these, and finally is required to analyze systematically solutions containing two or more basic ions.

Textbook: Scott, *Elements of Qualitative Chemical Analysis*.

Chemistry 51-52—General physics (for University sophomores and second-year College Students). Lectures and recitations. 1 hour, 2 points. Professors SCHAEFER and A. TAUB.

This course is a continuation of *Chemistry 1-2* (general physics) and embraces the subjects of magnetism, electricity, and light. Special consideration is given to ionization, electrolysis, the electron hypothesis, vacuum tubes, the spectroscope, spectrum analysis, double refraction, and the polariscope.

The lectures will be accompanied and made more interesting by many exhibitions and experiments.

Textbook: Stewart, *College Physics*.

Chemistry 54—Practical physics (for University sophomores). Laboratory course 4 hours, 2 points. Professor A. TAUB and instructors.

The course consists of sixteen half-day periods of four hours each, given during the second half of the year.

This work consists of experiments in fundamental physical measurements followed by special work in mechanics, heat, light, sound and electricity. The laboratory is equipped not only with apparatus for routine exercises, but has the appliances necessary for work in colorimetry, spectroscopy, spectrophotometry, refraction, calorimetry, and electrochemistry.

Chemistry 55-56—Inorganic chemistry (for University sophomores, and second-year College Students). Lectures and recitations 3 hours, 6 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of *Chemistry 3-4* will be devoted to a consideration of the metallic elements and their compounds. It will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry will be discussed. In descriptive chemistry, the course will consider all of the more important metallic elements. These will be discussed from the standpoint of modern industrial chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition.

Chemistry 57-58—Analytical chemistry (for University sophomores). Laboratory course 3 hours, 3 points. Professor KASSNER and instructors.

The course in qualitative analysis begun in the first year is continued through the first half of the second year. The sequence of work is as follows:—(1) the study of the acidic-ions according to an analytical scheme of separation; (2) a systematic method of preliminary testing of unknown compounds; (3) the preparation for analysis of water-insoluble substances; and (4) the complete qualitative analyses of unknown solutions or powders containing two or more compounds.

The second half of the year's work is devoted to a course in volumetric analysis. This begins with the study of general principles and theoretical considerations, the theory of indicators, pH values and the use of the analytical balance. It continues with the preparation of certain volumetric solutions and their uses in quantitative analysis by (1) neutralization (2) precipitation, (3) oxidation and reduction, and (4) iodometry.

Textbooks: Scott, *Elements of Qualitative Chemical Analysis*; U. S. Pharmacopœia.

Chemistry 59-60—Analytical chemistry (second-year College Students). Laboratory course 3 hours, 3 points. Professors SCHAEFER and MACSATA and instructors.

The first half of the second-year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

The second half of the school year is devoted to the theory and practice of volumetric analysis. The proper preparation of volumetric solutions is given consideration and all types of U. S. P. volumetric assays are conducted. The theories of indicators are presented and considerable time is devoted to the calculations involving a knowledge of volumetric analysis.

Textbooks: Schaefer and Bliss, *Qualitative Chemical Analysis*; U. S. Pharmacopœia.

Chemistry 101-102—Theories of chemistry (for University juniors). Lectures and recitations 1 hour, 2 points. Professor SCHAEFER.

The object of this course is to bring together, to correlate and to elaborate somewhat the various theories presented to the student in the regular chemistry and physics lectures. Consideration is given to the kinetic theory, the gas laws, the laws governing change of state, the quantitative laws of chemical combination, the atomic hypothesis, the laws of valence, the periodic system, radioactivity, atomic disintegration, atomic structure, solubility, ionization, indicators, equilibrium, electrochemistry and colloids.

Special importance is placed upon the practical application of modern theories of physical chemistry to analytical processes and methods.

Textbook: Chapin, *College Chemistry*.

Chemistry 103-104—Organic chemistry (for University juniors and third-year College Students). Lectures and recitations 3 hours, 6 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of *Chemistry 3-4* and *55-56*, will be devoted to a comprehensive study of the carbon compounds, special care being taken to keep the course abreast the new applications of organic chemistry in pharmacy and medicine. The preparation of the more common organic chemicals is given careful consideration and advances under modern methods of research are presented to the class as they are reported.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; U. S. Pharmacopœia.

Chemistry 107-108—Newer remedies (third-year College Students). Lecture and recitations 2 hours, 4 points. Professor SCHAEFER and instructors.

The aim of this course is to make the students familiar with the many preparations generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given.

Textbooks: *New and Non-official Remedies*.

Chemistry 109—Analytical chemistry (third-year College Students). Laboratory 6 hours for $\frac{1}{2}$ year, 3 points. Professors SCHAEFER, MACSATA and instructors.

This course will be given in six-hour periods to one section during the first half year and to the other section during the second half. This will enable the student to perform operations which require more time than is available in the usual three-hour period. The course will be devoted

entirely to pharmaceutical testing and assaying. Some of the more important operations to be carried out are:—The preparation and standardization of volumetric solutions, testing the purity and strength of official chemicals and galenicals, selected gravimetric determinations, iodine values, saponification values, examination of oils, identification of alkaloids. The assay of crude drugs will be given special attention by dividing the section into still smaller groups for this work thus insuring better and more careful supervision. Practice will of course be given in the use of the analytical balance.

Textbooks: *United States Pharmacopœia and National Formulary*.

Chemistry 110—Same as *Chemistry 109*, but given during the second half of year.

Chemistry 106—Analytical chemistry and urine analysis (for University juniors). Laboratory, 16 hours for 19 weeks, beginning December 15, 1930, 10 points. Professor KASSNER and instructors.

During the first part of the course, the student is supplied with pure and adulterated samples of official organic chemicals and is required to test them for identity and purity to determine whether they conform to the requirements of the *Pharmacopœia*, each sample studied representing a typical class of organic compound. This work also involves the determination of congealing, boiling and melting points, fractionations, alcoholometric estimations and other determinations of like character.

The second section of the course is devoted to volumetric analysis, the solutions used being prepared and standardized by the student. The substances assayed include antiseptics, disinfectants, ointments, volatile oils, etc.

The third part of the year's work deals with the assaying of vegetable drugs, including the determination of alkaloids in crude drugs and their pharmaceutical products, crude fiber, soluble extractive, etc.

The above course is concluded with certain miscellaneous assays. The final period is devoted to the analysis of urine.

Textbooks: *U. S. Pharmacopœia*; Weston, *Carbon Compounds*.

Chemistry 151-152—Inorganic quantitative analysis (for University seniors). Lectures 1 hour a week for 32 weeks, laboratory, 29 hours a week for 8 weeks, beginning September 22, 1930, 10 points. Professor KASSNER and instructors.

The aim of this course is to train the student to carry out with precision many of the more difficult analyses of chemical and pharmaceutical products.

The laboratory work of the course consists, in the main, of a series of selected gravimetric determinations covering a wide field of substances, chosen to illustrate typical methods of procedure. This work is supplemented by operations involving the use of the viscosimeter, bomb calorimeter, etc.

In the lecture course, methods of quantitative analysis, gravimetric, volumetric, colorimetric, etc., are discussed at length and compared.

Reference books: Clowes and Coleman, *Quantitative Analysis*; Scott, *Standard Methods of Chemical Analysis*.

Chemistry 153-154—Food analysis and toxicology (for University seniors). Lectures 1 hour a week for 32 weeks, laboratory 29 hours a week for 8 weeks, beginning November 17, 1930, 10 points. Professors ARNY and KASSNER and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course describing the various chemical and physical methods of food examination.

Textbooks: Leach, *Food Analysis*; Mason, *Examination of Water*.

Reference Books: Allen, *Commercial Analysis*; Autenrieth-Warren, *Detection of Poisons*.

Chemistry 155-156—Biological chemistry (for University seniors). Lectures 1 hour, 2 points. Dr. KARSHAN.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

Chemistry 157-158—Chemical and general bibliography (for University seniors). Lectures and conferences 1 hour, 2 points. Professors ARNY and KASSNER.

This course will consist of lectures on the source books of chemistry, pharmacy, botany and cognate sciences and on the periodical literature on the same subjects. At the conferences, special themes will be assigned to each student for research during spare hours.

MATERIA MEDICA

Materia Medica 1-2—Botany (for University freshmen and first-year College Students). Lectures and recitations 2 hours, 4 points. Professor HART and instructors.

The object of this course is to prepare the student for an understanding of that part of materia medica which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction includes a brief consideration of plant life in general and the evolution of the higher plants from those of a simpler nature. The major portion of the time available is devoted to the morphology of the higher plants from which nearly all of our vegetable drugs are derived, the terms used in official descriptions, systems of classification, and botanical nomenclature.

The lectures are illustrated by large colored charts, and in some cases, with cards in the hands of the students.

For the use of the instructor in the quiz room, the Alumni Association has provided an elaborate series of *papier-mâché* models arranged to illustrate structure and dissection.

Textbook: Rusby, *Manual of Botany*.

Materia Medica 3-4—Botany laboratory (first-year College Students). Lectures and recitations 1 hour, laboratory 4 hours, 6 points. Professors BAL-LARD, HART and TAUB and instructors.

Morphology.—Pharmacognosy, while itself not a science, may be regarded as the art of applying scientific knowledge to the examination of drugs. The theoretical and practical training of the lecture and recitation room is designed to fit the student for such botanical observations as can ordinarily be made with the naked eye.

To enable him to extend these observations by the use of the simple or dissecting and the compound microscope, in preparation for the study of pharmacognosy in the following year, a course of laboratory instruction is provided. This portion of the work is under the direction of Professor HART, and consists in thoroughly training the students in the use of the simple microscope, and in teaching the structure of all parts of the plant which can be studied with that instrument. In this laboratory instruction a developmental sequence of plant life is followed, beginning with the single-celled forms and terminating with a detailed study of the various organs of the seed-bearing plants.

The material for these studies is collected during the summer season, and carefully selected with a view to best illustrating the points brought out in the lecture room.

Histology.—As ability to use a microscope properly is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts of the instrument. The uses of the various types of objectives, oculars, illuminating apparatus and mechanical accessories are explained and demonstrated. The details of sectioning, embedding, staining and mounting specimens are illustrated by demonstrations, and at least part of the work is performed by the student.

The course under the direction of Professor BALLARD includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant. Each student prepares a set of specimens for use in the course and is required to follow the lecture explanations by personal observation and drawings illustrating the topics considered at each session.

Textbooks: Ballard, *Elements of Vegetable Histology*, 2nd Edit.; Ballard and Hart, *Laboratory Manual*.

Materia Medica 5-6—Posology (first-year College Students). Lectures and recitations 1 hour, 2 points. Professor H. TAUB.

The average dosage of U. S. P. and N. F. drugs is considered with the object of teaching the student to recognize an overdose in actual prescription practice. The course covers the recognition of safe and dangerous prescriptions, approximate equivalents and conversion methods from one system into the other, and dosage of non-official but commonly prescribed synthetic remedies.

Materia Medica 7-8—Posology (for University freshmen). Lectures and recitations ½ hour, 1 point. Professor H. TAUB.

The relationship in dosage of chemically similar substances and botanically related drugs is considered during the first portion of the course; the material of the College Course is given in brief in the latter half.

Materia Medica 9-10—Plant morphology and histology (for University freshmen). Lectures 1 hour, laboratory 4½ hours, 6½ points. Professors BALLARD, HART, TAUB and instructors.

Morphology.—The laboratory course in morphology is designed to supplement the lectures in pharmaceutical botany (*Materia Medica 1-2*). It affords practical training in simple plant dissection, both with and without the dissecting microscope, thereby illustrating the topics considered in the above lecture course and fitting students for the advanced studies of pharmacognosy and taxonomy.

Histology.—This section of the course includes a systematic review of one or more representative orders of the Thallophyta, Bryophyta, Pteridophyta and Spermatophyta. The chief object is the tracing of the origin and development of the various tissues and organs occurring in the higher plants. This is followed by a detailed study of the various cellular elements, considered both as individual tissues and as integral parts of plant organs.

Textbooks: Ballard, *Elements of Vegetable Histology*, 2nd Edit.; Ballard and Hart, *Laboratory Manual*; Rusby, *Manual of Botany*; Curtis, *Nature and Development of Plants*.

Materia Medica 53-54—Pharmacognosy, macroscopic and microscopic (second-year College Students). Laboratory 3 hours, 3 points. Professors BALLARD, TAUB and instructors.

Macroscopic.—This part of the course comprises laboratory instruction in the classification, identification and description of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial

sources; official description, definition and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. Botany (courses *Materia Medica* 1-2, 3-4 or equivalent) are prerequisite to a proper understanding of the work in this course.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*.

Microscopic.—The preliminary work of this part of the course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (course *Materia Medica* 3-4) is coordinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements *in situ* and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

Textbooks: Ballard, *Elements of Vegetable Histology*, 2nd Edit.; Ballard and Hart, *Laboratory Manual*.

Materia Medica 55-56—Macroscopic pharmacognosy (for University sophomores). Laboratory 2 hours, 2 points. Professors BALLARD and TAUB.

This course includes all of the instruction offered in macroscopic pharmacognosy, *Materia Medica* 53-54, but in addition many non-official articles of commercial and technical importance are studied. Experience in manufacturing fields has shown that these non-official drugs and drug materials are in frequent use and familiarity with them is especially important in view of their non-inclusion in the Pharmacopœia and National Formulary.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*; Youngken, *Pharmacognosy*.

Materia Medica 57-58—Human physiology and hygiene (for University sophomores and second-year College Students). Lectures and recitations 2 hours each, 4 points. Professor RUSBY and instructors.

In addition to the skill in pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in human physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies, in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of materia medica as is properly required of the practicing pharmacist.

Textbook: Bachman and Bliss, *Essentials of Physiology*.

Materia Medica 59-60—Microbiology (second-year College Students). Lectures and recitations 1 hour, laboratory and demonstrations 1 hour, 3 points. Professor HART and instructors.

This subject constitutes an introduction to the nature, behavior and effects of microorganisms, especially of bacteria. Without entering upon the subject of practical laboratory bacteriology, as

is done in the University Course, it discusses the life history of bacteria, and the part that they play in fermentation and decomposition, as well as in disease, and indicates the general nature of the means employed in combating them, and treats of biological products. The subject of sterilization, as employed in the pharmacy, and the principles of antiseptics and immunization are studied.

The study of yeasts, molds and blood smears is included in this course.

Materia Medica 61-62—Bacteriology (for University sophomores). Lectures 1 hour, laboratory 2 hours, 4 points. Professor HART and instructors.

The bacteriological laboratory in our new building has been fully equipped, and practical work in this important field is taken up. The general principles of the science are taught, and the students cultivate, stain, and study the more important microorganisms. Laboratory methods in the bacterial examination of water, air, milk, ice, sputum and excreta are given, and methods of disinfection and sterilization are practically demonstrated.

Textbook: Park and Williams, *Pathogenic Microorganisms*.

Materia Medica 101-102—Materia medica (for University juniors and third-year College Students). Lectures and recitations, 3 hours, 6 points. Professors RUSBY, TAUB and instructors.

This course includes instruction in both the inorganic and organic divisions of drugs. In connection with the extension of our course to three years, the instruction in materia medica has been completely reorganized and a new textbook has been written for the students. In the new arrangement, the drugs have been classified in accordance with their medicinal uses. Discussion of the individual drugs covers the official titles, abbreviations, definitions and standards, origin, preparation, preservation, variations in quality and causes of such variation, constituents, properties and uses, preparations and doses. All instruction in description, structure and identification, and the detection of adulterants and impurities is referred to the extensive course in pharmacognosy.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

Materia Medica 103-104—Toxicology (third-year College and University Classes). Lectures and recitations, 1 hour, 2 points. Professors RUSBY and TAUB and instructors.

The classification of poisons is based upon the physiological action of medicines, taught in the preceding year, and is synoptically presented at the beginning of the course in materia medica. The toxicology of the individual drugs is then taken up in detail in connection with their physiological action and medicinal uses. Experience has shown that by this method the modes of occurrence of poisoning accidents, the poisonous doses, the action of poisons and their rational treatment, are all made more intelligible to the student, and are better impressed upon his memory, than by treating the subject as entirely disconnected from that of materia medica.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

Materia Medica 109-110—Pharmaceutical sundries (third-year College Students). Lectures 1 hour, 2 points. Professor BALLARD.

This course includes a systematic presentation of the facts of interest to the retail pharmacist in the use and sale of the ordinary sick-room sundries. The course is thus linked with materia medica on the one hand and commercial pharmacy on the other. Among the topics considered are: bandaging and dressing materials, rubber sundries, glass and metal appliances, ligatures and first-aid apparatus.

Materia Medica 111-112—Microscopic pharmacognosy (for University juniors). Lectures $\frac{1}{2}$ hour, laboratory $1\frac{1}{2}$ hours, $2\frac{1}{2}$ points. Professors BALLARD, TAUB and instructors.

This course consists in a detailed study of the histological structure of the several plant organs, followed by a consideration of the characters and adulterants of the commonly used powdered drugs. It includes the preparation of specimens both in sectioned and powdered forms and the application of stains and microchemical tests to the materials so prepared.

Textbook: Ballard, *Laboratory Manual*.

Materia Medica 152—Applied pharmacognosy (for University seniors). 2 hours lecture, 21 hours laboratory for eight weeks beginning March 23, 1931, 6½ points. Professors BALLARD and TAUB.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials, using these sections for the demonstration of staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work, it is expected that the student will avail himself of the library facilities of the College and freely use the economic drug and food collections of the laboratory for reference and comparison purposes. The aim is to duplicate actual commercial laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, so far as possible, be commercial products which have been analyzed by microscopical methods.

References: Youngken, *Pharmacognosy*.

Materia Medica 154—Botanical taxonomy (for University seniors). 6 hours laboratory for eight weeks beginning March 23, 1931. 1½ points. Professor RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Textbook: Rusby, *Manual of Botany*.

References: Bentham and Hooker, *Genera Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

Materia Medica 155-156—Human physiology (for University seniors). Textbook and conferences 1 hour, 2 points. Dr. HOPPING.

This course consists of a series of discussions, based on assigned reading, occupying 1 hour weekly throughout the term.

Textbook: Howell, *Physiology*.

PHARMACY

Pharmacy 1-2—Theory of pharmacy including metrology and operative pharmacy (first-year College and University Classes). Lectures 2 hours, recitation 1 hour. Professors WIMMER, BROWN, CARTER and instructors. 6 points.

The purpose of this course is to introduce the student to the fundamentals of pharmaceutical science. It comprises the study of elementary pharmaceutical operations, such as heating, evaporation, sublimation, distillation, solution, crystallization, precipitation, filtration, etc. It also includes the study of the general principles involved in the manufacture of the various classes of pharmaceutical compounds, such as the fluid extracts, tinctures, syrups, elixirs, etc.

A series of lectures is devoted to a brief study of the historical development of pharmacy, beginning with the Egyptian age and tracing it through the Greek, Roman, Arabic, and European periods up to the present time. Special stress is laid upon the development of pharmacy in the United States, upon its position in the economic life of the nation; its organization; the accomplishments, aims and purposes of the various pharmaceutical associations; the pharmaceutical code of ethics.

The lectures on metrology comprise the study of the various systems of weights and measures and of their relationships to each other; specific gravity and its uses in pharmacy; thermometric scales, etc.

Textbooks: *U. S. Pharmacopœia X*; Arny, *Principles of Pharmacy*; Sturmer, *Pharmaceutical Arithmetic*.

Pharmacy 3-4—Manufacturing pharmacy laboratory (first-year College and University Classes). Laboratory course 3 hours, recitation 1 hour. Professors BROWN, CARTER, DORFMAN and instructors. 5 points.

The work of this course affords students the opportunity to apply practically their theoretical knowledge of the processes of calcination, distillation, sublimation, crystallization, purification and granulation of salts, and the determinations of specific gravity, solubility of salts and alcoholic content of liquids. It also includes the manufacture of tinctures, fluid extracts, and extracts by percolation, and the preparation of various classes of galenicals and the more simple types of chemical preparations.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes* and *U. S. Pharmacopœia*.

Pharmacy 5-6—Dispensing pharmacy laboratory (freshman University Class). Laboratory course 2 hours, recitation ½ hour. Professor CARTER and instructors. 3 points.

The work of this course is similar in scope, covering laboratory work and instruction, as outlined under *Pharmacy 55-56*.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; *U. S. Pharmacopœia* and *National Formulary*.

Pharmacy 51-52—Theoretical pharmacy including pharmaceutical arithmetic (second year College and University Classes). Lecture 1 hour, recitation ½ hour. Professors WIMMER, BROWN and instructors. 3 points.

This course is devoted to the study of pharmaceutical arithmetic in its various aspects. It comprises the study of proportions, percentage, alligation, reducing and enlarging formulæ etc., as used in both manufacturing and dispensing pharmacy.

During the second semester the study of the official preparations is begun and carried along through the fluid extracts, extracts, tinctures and other preparations made directly from vegetable drugs.

Textbooks: Sturmer, *Pharmaceutical Arithmetic*; *U. S. Pharmacopœia*; *National Formulary*.

Pharmacy 53-54—Pharmaceutical Latin (second-year College and University Classes). Lecture 1 hour, recitation ½ hour. Professor DORFMAN and instructors. 3 points.

This course is devoted to the study of pharmaceutical Latin. The work is divided as follows: (A) Study of the principles of etymology and syntax; (B) systematic study of Latin vocabulary including official Latin titles, botanical nomenclature and abbreviations with special reference to the formation of words and their relative importance to pharmacy; and (C) practice in prescription writing, necessary to an intelligent understanding of Latin used in prescriptions.

Textbooks: Sturmer, *Pharmaceutical Latin*; *U. S. Pharmacopœia*; *National Formulary*.

Pharmacy 55-56—Dispensing pharmacy laboratory (second-year College Class). Laboratory course 3 hours, recitation 1 hour. Professors BROWN, DORFMAN and instructors. 3 points.

The first semester embraces general methods of compounding pills, troches, bacilli, emulsions, ointments and suppositories. It includes theoretical instruction and training in practical work emphasizing the habits of accuracy and neatness.

The second semester deals more especially with prescriptions and includes the compounding and dispensing of the various types requiring technical knowledge and skill. Consideration is

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given to tablet triturates, mucilages, mixtures, and filling of capsules, cachets, collapsible tubes, etc. General instruction is given in the reading and interpretation of prescriptions, the recognition of the various constituents of their ingredients together with the proper methods and manner of dispensing them.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; U. S. Pharmacopœia and National Formulary.

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Pharmacy 57-58—Dispensing pharmacy laboratory (sophomore University Class). Laboratory course 3 hours, recitation 1 hour. Professor CARTER and instructors. 5 points.

This course is a continuation of the work in the dispensing laboratory of the first year involving thorough laboratory work and instruction in the preparation and dispensing of mixtures, adjusted solutions, pastilles, lamels, compressed tablets, powders, crayons, medicated gauzes, cottons, etc. During the second semester the laboratory practice deals particularly with the various phases of prescription dispensing, such as prescription writing and checking, labeling, wrapping, pricing and delivery, etc.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; U. S. Pharmacopœia and National Formulary.

Pharmacy 59—Manufacturing pharmacy laboratory (sophomore University Class). Laboratory course 3½ hours, recitation ½ hour, 16 weeks beginning September 24, 1930. Professor CARTER and instructors. 2½ points.

This course deals with the manufacture of the more important pharmaceutical preparations of inorganic and organic nature thus giving laboratory practice and technique preliminary to the work of the manufacturing laboratory in the third year.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes*; U. S. Pharmacopœia.

Pharmacy 61-62—Commercial pharmacy (second-year College and University Classes). Lecture 1 hour, recitations 2 hours. Professor LASCOFF. 6 points. *practice*

This course in commercial pharmacy is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug store, including the choice of location, the elements of business administration and store management, insurance, problems of retail merchandising, including the value of discounts, banking, principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will partially be devoted to the principles underlying the making and interpretation of these records.

Pharmacy 101-102—Theoretical pharmacy (third-year College Class). Lectures 2 hours, recitation 1 hour. Professor WIMMER and instructors. 6 points.

During the first semester, the study of the U. S. Pharmacopœia and National Formulary galenical preparations is continued and completed. Their methods of preparation are individually studied and the reasons for each step taken in their preparation are given. The second semester is devoted to the study of non-official important galenical, cosmetic and toilet preparations, as well as to the study of the pharmacy of individual substances used in prescriptions.

Textbooks: U. S. Pharmacopœia; National Formulary V; American Pharmaceutical Association Recipe Book.

Pharmacy 103-104—Theoretical dispensing pharmacy (third-year College Class). Lectures 1 hour, recitation 1 hour. Professor WIMMER and instructors. 4 points.

This course is devoted in the main to the study of the problems encountered by the pharmacist in his prescription work. Prescriptions of all kinds, especially such as present some difficulties, are studied with the aid of lantern slides. The numerous incompatibilities of present-day prescription work are discussed, as well as ways of avoiding or overcoming them. The subject of homeopathy receives the attention it deserves.

Textbooks: Scoville, *The Art of Compounding*; Ruddiman, *Incompatibilities*.

Pharmacy 105—Manufacturing pharmacy laboratory (third-year College Class). Laboratory course, 16 weeks (two sections alternating). 6 hours. Professors BROWN, DORFMAN and instructors. 3 points.

The work of this course is a continuation of the first year. Many inorganic and organic pharmaceutical preparations and salts are manufactured. In addition, galenicals, toilet preparations and hospital formulæ are compounded. Especial attention is given systematic training in the identification of many chemicals and galenicals official in the United States Pharmacopœia and National Formulary.

Textbooks: U. S. *Pharmacopœia*; *National Formulary*; *National Dispensatory*; *The Pharmaceutical Recipe Book*; Diekman and Wimmer, *Pharmacy Notes*.

Pharmacy 107-108—Dispensing pharmacy laboratory (third-year College Class). Laboratory course, 4 hours. Professors BROWN, DORFMAN and instructors. 4 points.

The work in the dispensing pharmacy laboratory deals particularly with the various phases of prescription dispensing, such as checking, labeling, pricing and delivery, etc. The all-important subject of chemical, pharmaceutical and therapeutical incompatibilities is thoroughly studied. The continual introduction of new remedies renders the subject of prescription incompatibilities a never-ending study, and it is the aim of this course to qualify its graduates to keep pace with discovery.

Textbooks: Ruddiman, *Incompatibles in Prescriptions*; Diekman and Wimmer, *Pharmacy Notes*.

Pharmacy 109-110—Pharmaceutical jurisprudence and business pharmacy (third-year College and University Classes). Lectures 2 hours, recitation 1 hour. Professor LASCOFF, Mr. NEUSTAEDTER and visiting lecturers and instructors. 6 points.

This course is designed to familiarize the student with the fundamentals underlying all law and also with the general provisions of Federal and state laws governing the practice of pharmacy. The various ordinances and regulations having local application will also be studied. Special attention is given to prohibition and anti-narcotic laws and regulations.

Lectures by practical business men will be a feature of the course. This series of lectures will give the student the principles of merchandizing from a business man's viewpoint rather than from that of the pedagogue. These lectures, as well as those of the regular course, are aimed to give the student a better understanding of contemporary business problems.

Pharmacy 111—Practical pharmacy—manufacturing pharmacy laboratory (third-year University Class). Laboratory 16 hours per week for 12 weeks beginning September 22, 1930. Professor CARTER and instructors. 5 points.

This course includes the manufacture of a number of the more difficult Pharmacopœial and National Formulary preparations, as well as of inorganic and organic medicinal remedies. The work is intended to qualify students for positions in pharmaceutical manufacturing establishments.

Textbook: Wimmer, *Manufacturing Pharmacy Notes*.

Pharmacy 113—Practical dispensing pharmacy (third-year University Class). Laboratory 3 hours per week for 10 weeks beginning September 22, 1930. Professor CARTER and instructors. 2 points.

This course embraces a thorough study of the various types of incompatibilities. A large number of prescriptions are compounded which illustrate how some incompatibilities may be avoided or overcome.

Textbooks: Diekman and Wimmer, *Incompatibilities*; Ruddiman, *Incompatibilities in Prescriptions*.

Pharmacy 115-116—Theoretical pharmacy (second-year University Class). Lectures 2 hours, Professor WIMMER. 4 points.

This is the same lecture course as *Pharmacy 101-102*, but no formal recitations are provided.

Pharmacy 151-152—Advanced pharmacy (fourth-year University Class). Lecture 1 hour. Professor WIMMER. 2 points.

This course is devoted to a detailed study of pharmaceutical, chemical and biological assay methods of vegetable and animal drugs, as well as of methods for their identification. It includes the newer methods employed, such as the standardization of tannin-containing drugs by the agglutination test, of saponin-containing drugs by the determination of their haemolytic indices, etc.

A portion of the lecture course is devoted to a study of essential oils, while especial emphasis is laid upon official oils. Those of importance in the essential oil industry are included.

In a series of seminars, students are required to prepare and present before the professors and instructors in the department, papers on current topics of interest pertaining to pharmaceutical and allied sciences.

Textbooks: Fuller, *Analysis of Drugs and Medicines*; U. S. Pharmacopœia; National Formulary V; Gildemeister and Hoffman, *The Volatile Oils*.

Pharmacy 153-154—Pharmaceutical assaying (fourth-year University Class). 8 weeks beginning January 26, 1930. Laboratory, 7 hours. Professors WIMMER, CARTER and instructors. 7 points.

This course is intended to prepare the student for work as a drug analyst. The entire class carries out a proximate analysis of a vegetable drug. Individual problems in assay work of the most varied and difficult kind are assigned and the student is, to a considerable extent, left to his own resources. The work embraces assays of galenicals, flavoring extracts, toilet preparations, cosmetics, medicinal gauzes, etc.

Textbooks: Fuller, *Analysis of Drugs and Medicines*; Nelson, *Introduction to the Analysis of Drugs and Medicines*; *Current Literature*.

CULTURAL COURSES

College 1-2—English (for University freshmen). Lectures and recitations, 3 hours, 6 points. Mr. McJIMSEY.

This is the Columbia College course *A1-A2*, in English composition and literature, required of all freshmen at that College.

College 3-4—American government (for University freshmen). Lectures and recitations, 3 hours, 6 points. Mr. McJIMSEY.

This is the Columbia College course *Government 1-2*, American government. It constitutes a general survey of the most persistent problems of American government—national, state, and local—considering problems of political organization in the first semester, and problems of administrative organization and personnel, and those related to the functions of finance, justice, the relation of government to economic life, and foreign relations in the second semester.

College 51-52—German (for University sophomores). Lectures and recitations, 5 hours, 10 points. Mr. INGENHUETT.

This is an introductory course in German.

College 101-102—Mathematics (for University juniors). 3 hours, 6 points. Mr. McJIMSEY.

This course comprises the Columbia College course *Mathematics A1*, trigonometry and *A6r*, solid geometry.

THE GRADUATE COURSE

A graduate course of two full years' study in residence, is open to graduates with the baccalaureate degree, conferred by this college or other schools of pharmacy maintaining equivalent courses of study. For the present, we are able to accommodate only two students majoring in each of the Departments of Chemistry, Materia Medica, and Pharmacy. Thirty hours' study weekly is required in the department in which the student is majoring, and three hours weekly in each of the other two departments. In the latter departments, certain work is obligatory, although an option is allowed the student, between two or more schedules, as follows:

CHEMISTRY

Fifth Year

Option A—Lecture courses consisting of **Chemistry 201-202—Structural organic chemistry**. 2 hours. 4 points. Professor ARNY.

Chemistry 203-204—Synthesis of newer organic medicinal chemicals. 1 hour. 2 points. Professor SCHAEFER.

Option B—Laboratory work. **Chemistry 205—Experimental organic chemistry**. 2 periods weekly at 6 hours each during 8 weeks. 3 points. Professors ARNY and TAUB.

This course includes combustions and other organic analyses, molecular weight determinations and other such work as time permits.

Sixth Year

Option A—The same lecture courses offered to students of the fifth year, provided such courses have not already been offered as fifth year subjects.

Option B—**Chemistry 207—Advanced organic analysis**. 2 periods of 6 hours weekly during 8 weeks. 3 points. Professor KASSNER.

This course includes modern methods of organic radicles; the quantitative determination of elements and radicles not performed in previous years; and lastly, time permitting, special analytical methods such as electrometric titrations and the polarimetry of complex mixtures.

MATERIA MEDICA

Fifth Year

Option A—**Materia Medica 201—Analysis and determination of cryptogamous and phanerogamous plants**. Laboratory course, two periods weekly of 6 hours each, during 8 weeks. 3 points. Professors RUSBY and HART.

Option B—Materia Medica 203—Advanced bacteriology. Laboratory and conferences, 2 periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professor HART.

The determination of types through special cultural and staining methods.

Option C—Materia Medica 205—Food microscopy. Laboratory and conferences, 2 periods weekly of 6 hours each, during 8 weeks. $3\frac{1}{2}$ points. Professor BALLARD.

A systematic study of the various classes of foodstuffs in which adulteration can be determined by microscopical methods.

Sixth Year

Option A—(To be offered only if Option A of the fifth year has been carried. If not, that work will constitute Option A of the sixth year.) Materia Medica 207—The literature and methods of research in vegetable taxonomy. Conference and laboratory, two periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professors RUSBY and HART.

Option B—Materia Medica 209—Bacteriology. Conference and laboratory, 2 periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professor HART.

The preparation of antitoxic products in media and their cultivation through animal experimentation.

Option C—Materia Medica 211—Chemical microscopy. Conference and laboratory, 2 periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professors BALLARD and TAUB.

A study of the microchemical procedures involved in the use of the microscope as an aid in chemical analysis.

PHARMACY

Fifth Year

Option A—Pharmacy 201—Assay and analysis of official and non-official galenicals and other medicinally compounded preparations. Lectures and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professor WIMMER.

Option B—Pharmacy 203—Manufacture, composition and analysis of toilet preparations and cosmetics. Lectures and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professor WIMMER.

Sixth Year

Option A—Pharmacy 205—Examination and analysis of incompatible mixtures with special reference to prescriptions. Laboratory work only. 2 periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professor WIMMER.

Option B—Pharmacy 207—Examination and analysis of essential oils, flavoring extracts and perfume materials. Lecture and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professor WIMMER.

SUBMISSION OF THESIS

At least fifteen days before the first day on which University examinations are scheduled to be held, the candidate shall submit three finished copies of his or her thesis, in typewritten form, to the professor in whose department the candidate is majoring.

The awarding of the degree shall be dependent upon the approval of the thesis, and the results of an oral Faculty examination of the candidate.

SUMMER LABORATORY COURSES

These courses are designed to assist students who have failed at the spring examinations to prepare for those of the fall, and to provide instruction for special students in the use of the microscope, in the examination of drugs and in pharmaceutical processes.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

SUMMER LABORATORY COURSES 1930

First-, Second- and Third-Year College Classes

June 9 to June 28—Department of Chemistry.

June 30 to July 19—Department of Materia Medica.

July 21 to August 9—Department of Pharmacy.

SUMMER LABORATORY COURSES 1931

First-, Second- and Third Year College Classes

June 8 to June 27—Department of Chemistry.

June 29 to July 18—Department of Materia Medica.

July 20 to August 8—Department of Pharmacy.

UNIVERSITY CLASSES

University students failing in laboratory courses will be advised by the Registrar regarding the summer laboratory schedules.

EVENING COURSES

These courses of instruction, although they cannot be substituted for any of our regular work leading to degrees, have proven of great benefit to those who cannot attend during the day, and to those who desire to pursue special courses of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes.

Candidates may be admitted at any time during the course, at the discretion

of the director of the course, but only those who have attended at least 80 per cent of all exercises and who pursue the courses for which they are registered in a satisfactory manner, will receive certificates.

The courses are offered on Monday, Tuesday and Friday of each week during the periods from Monday, October 6, 1930 to January 16, 1931 and from January 19, 1931 to Friday, May 8, 1931.

The Registrar's office will be open daily for registration from 10 a. m. to 4 p. m. and on Monday, Tuesday and Friday evenings from 7 to 8 o'clock, during the first two weeks of each semester.

Fees are payable in advance and are not returnable. A registration fee of \$6 is required of each student in addition to the fees stated below.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

The following courses are offered:

DEPARTMENT OF CHEMISTRY

Evening Chemistry 1-2—Pharmaceutical qualitative analysis. 1 hour classroom and 2 hours laboratory each week. Fee \$25 each semester, \$10 breakage deposit. Professor SCHAEFER and Mr. JAYNE.

7:30-10:30 p. m., Friday.

Lecture, 7:30-8:20 p. m. Friday.

Laboratory, 8:30-10:30 p. m. Friday.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Evening Chemistry 3-4—Pharmaceutical qualitative analysis. 1 hour classroom and 2 hours laboratory work each week. Fee \$25 each semester, \$10 breakage deposit. Professor SCHAEFER and Mr. JAYNE.

7-10 p. m., Friday.

Laboratory, 7-9 p. m. Friday.

Lecture, 9:10-10 p. m. Friday.

This course is a continuation of *Evening Chemistry 1-2* with particular reference to the U. S. P. tests for acid-ions. (Conditional on the enrollment of ten students.)

Evening Chemistry 5-6—Pharmaceutical volumetric analysis. 1 hour classroom and 2 hours laboratory work. Fee \$25 each semester, \$10 breakage deposit. Professor SCHAEFER and Mr. JAYNE.

7-10:30 p. m., Friday.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Evening Chemistry 7—Examination of urine. First semester, 1 hour lecture and 2 hours laboratory work. Fee \$25, \$10 breakage deposit. Professor SCHAEFER and Mr. JAYNE.

7:15-10:30 p. m., Friday.

Lecture, 7:20-8:20 p. m., Friday.

Laboratory, 8:30-10:30 p. m., Friday.

It should be noted that to qualify for "Director" of a laboratory, as defined by the Board of Health of the City of New York, a degree at least the equivalent of a B.S., is required.

In this course the qualitative and quantitative chemical tests of normal and pathological urine are studied; also the preparation and standardization of the necessary reagents. (Conditional upon the enrollment of twenty students.)

Evening Chemistry 8—Examination of urine. Second semester 1½ hours lecture and 2 hours laboratory work. Fee \$25, \$10 breakage deposit. Professor SCHAEFER and Mr. JAYNE.

7:30–10 p. m., Friday.

Lecture, 7:30–8 p. m., Friday.

Laboratory, 8:20–10 p. m., Friday.

In this course, a continuation of Evening Chemistry 7, the gravimetric, polariscopic, colorimetric and microscopic examination of urine is studied. (Conditional upon the enrollment of twenty students.)

Evening Chemistry 9–10—Newer remedies. 1 hour lecture each week throughout the year. Fee \$30. Professor SCHAEFER.

8:30–9:30 p. m., Friday.

The aim of this course is to give the graduate pharmacist an opportunity to become familiar with the chemistry of many "recent" remedies generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given. (Conditional on enrollment of twenty students.)

DEPARTMENT OF MATERIA MEDICA

Evening Materia Medica 1–2—Principles and practice of bacteriology. 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester, \$10 breakage deposit. Professor HART and assistants.

7–10 p. m., Tuesday. Lectures, 7–8 p. m. Room 42, Pharmacy.

Laboratory, 8–10 p. m.

This course includes the bacterial examination of sputum, excreta, water, air, milk and ice.

Special attention is given to the standard methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology and staining properties leading to the identification of the more common pathogenic bacteria. (Conditional on the enrollment of ten students.)

Evening Materia Medica 3–4—Blood analysis. 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester, \$10 breakage deposit. Professor H. TAUB and assistants.

7–10 p. m., Monday. Lecture, 7–8 p. m.

Laboratory, 8–10 p. m.

First semester: Preparation and study of blood smears in health and disease; total and differential counts; special pathology.

Second semester: Blood chemistry, including non-protein and urea nitrogen determinations, sugar, creatinin, uric acid, CO₂—combining power, chlorides, calcium, cholesterol, and other constituents; hemoglobin estimation, coagulation time; establishing and operating a laboratory. (Conditional on the enrollment of ten students.)

Evening Materia Medica 6—Parasitology. 1 hour lecture and 2 hours laboratory work each week, second semester. Fee \$40, \$10 breakage deposit. Professor HART and assistants.

7-10 p. m., Tuesday.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods. (Conditional on the enrollment of 10 students.)

Evening Materia Medica 7-8—Microbiology. 1 hour of lecture and demonstration each week throughout the year. Fee \$30. Professor HART.

7:30-8:30 p. m., Monday.

This course includes the methods of manufacture, standardization, administration and dosage of the commercial biological and bacteriological products and derivatives. Consideration is likewise given to the various methods of sterilization and disinfection as well as the principles of serology and immunology. (Conditional on enrollment of twenty students.)

Evening Materia Medica 9-10—Pharmaceutical sundries. 1 hour lecture each week throughout the year. Fee \$30. Professor BALLARD.

8:30-9:30 p. m., Monday.

While the retail pharmacist handles many items which are included under the general heading of sick-room supplies, he generally has little opportunity for systematic study of these articles and this is particularly true under present-day conditions. The object of this course of lectures is to acquaint him with the manufacture, differences and applications of bandaging and dressing materials, rubber sundries, glass and metal appliances, sutures and ligatures and the miscellaneous articles stocked in the average retail pharmacy and intended for physicians' or household use. The complicated and specialized types of surgical instruments and appliances will not be considered. (Conditional on enrollment of twenty students.)

DEPARTMENT OF PHARMACY

Evening Pharmacy 1-2—Manufacturing pharmacy. 1½ hours lectures and 1½ hours laboratory work each week. Fee \$35 each semester. Professor BROWN and assistants.

7:30-10:30 p. m., Tuesday.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail. (Conditional upon the enrollment of ten students.)

Evening Pharmacy 3-4—Manufacture of cosmetics and toilet preparations. 1 hour lecture and 2 hours laboratory work each week. Fee \$35 each semester. Professor WIMMER and assistants.

7:30-10:30 p. m., Tuesday. Main lecture room, Pharmacy.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face powders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured. (Conditional upon the enrollment of ten students.)

A summary of the lecture topics will be furnished upon request.

Evening Pharmacy 5-6—Perfume materials and perfumery. 1 hour lecture and 2 hours laboratory work each week. Fee, \$50 each semester. Professor WIMMER and assistants.

7 p. m., Monday. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprises the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included.

A summary of the course will be mailed upon request. (Conditional on the enrollment of ten students.)

Evening Pharmacy 7-8—Ampuls and medicated units. 1 hour lecture each week. Fee \$30 entire course. Professor CARTER.

7:30-8:30 p. m., Friday.

This course provides for the graduate pharmacist a thorough training in the principles of ampul medication both from the theoretical and practical viewpoints. Briefly, it considers the history, the advantages of parenteral administration, the forms and sizes of ampuls of American and foreign makes, together with the actual demonstration of ampul manufacture including glass blowing, filling, sealing, sterilization, etc. The National Formulary ampuls and products of various manufacturers are exhibited and discussed in detail paying strict attention to methods of packaging, storing and dispensing. (Conditional upon the enrollment of twenty students.)

THE ALUMNI ASSOCIATION OF THE COLLEGE OF
PHARMACY OF THE CITY OF NEW YORK

OFFICERS AND COMMITTEES, 1930-1931

President

FREDERICK D. LASCOFF

Honorary President

ADOLPH HENNING

Vice-Presidents

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MAY O'C. DAVIS, 1932.

JOHN H. HECKER, 1931.

F. J. POKORNY, 1932.

LESLIE JAYNE, 1931.

RUDOLF HAUCK, 1933.

V. K. COMMONS, 1932.

ARTHUR J. BAUER, 1933.

VITO CALCAGNO, 1933.

Committee on Papers and Queries

C. P. WIMMER

ADOLPH HENNING

JOHN H. HECKER

Delegates to the American Pharmaceutical Association

GEORGE C. DIEKMAN

C. P. WIMMER

ADOLPH HENNING

Delegates to the New York State Pharmaceutical Association

CHARLES W. BALLARD

HUGO H. SCHAEFER

VITO CALCAGNO

Delegates to the New Jersey Pharmaceutical Association

HAROLD McADAMS

CHARLES W. HOLTON

HARRY E. BISCHOFF

Delegates to the Connecticut Pharmaceutical Association

CURT P. WIMMER

HAROLD LEVY

FRANK V. DAMTOFT

ENDOWMENTS

For one hundred consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and Trustees. At various times financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this Announcement, in addition to the College Course of three years, leading to the degree of Ph.G., there is now provided a University Course of three years, leading to the degree of Ph.Ch., with an additional year of optional work, leading to the degree of B.S. in Pharmacy.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the College.

Since the actual instruction work of the College calls for the expenditures of our entire income received from students' fees, it follows that we are compelled, like other schools, to seek other sources of income for meeting unusual expenses.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

LIBRARY MAINTENANCE

The library facilities required by men engaged in advanced studies are necessarily much more extensive than those now provided by the College. The research work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.

APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to \$10,000 would admirably meet this demand.

MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or *matéria medica* museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum properly comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the city and Federal departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquiries could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an encyclopedic knowledge of the subject, and qualified to pursue original researches. Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

ADDITIONAL PROFESSORSHIPS

The establishment of a number of lecture courses to be served by specialists in their respective subjects is an essential requisite in the work of the final years of an advanced course. Perhaps the most important of such subjects is the

history of chemistry and pharmacy. The provision of even a short series of lectures would do much to point the way to investigation in the light of former achievement.

Those desiring to contribute toward any of the purposes named, or others in which they may be interested, will upon request be supplied with a form which may be used for the purpose.

REGISTER OF GRADUATES

BACHELOR OF SCIENCE, OCTOBER 30, 1929

Tong, Ah Yung
1404 Lusitania Street, Honolulu, P. I.
(1)

PHARMACEUTICAL CHEMISTS, OCTOBER 30, 1929

Appelbaum, Joseph
147 Schenectady Avenue, Brooklyn, N. Y.
Carnot, Edward Joseph
345 West 86th Street, New York, N. Y.
Ginn, Barnett
126 East 7th Street, New York, N. Y.
Glantz, Milton
355 Second Avenue, New York, N. Y.
Glassman, Louis H.
101 Straight Street, Paterson, N. J.
Groves, Reginald Doyle
415 Spooner Avenue, Plainfield, N. J.
Pitchinick, Bernard
1737 Pitkin Avenue, Brooklyn, N. Y.
Schmurok, Leon
19 Sterling Place, Edgewater, N. J.
Schopmann, William Henry
103 Grace Street, Jersey City, N. J.
Teicher, Milton
527 West 135th Street, New York, N. Y.
Weber, Jacob
1059 Glenmore Avenue, Brooklyn, N. Y.
(11)

BACHELORS OF SCIENCE, JUNE 4, 1929

Bevacqua, Alfred
375 Baldwin Avenue, Jersey City, N. J.
Brooks, Vernon Hazen
25 Maple Place, Portchester, N. Y.
Lippe, Abraham Alfred
540 Jerome Street, Brooklyn, N. Y.
Schultz, Joseph
990 Aldus Street, New York, N. Y.
Seng, John Warren
107 Carroll Place, New Brunswick, N. J.
Simone, Catherine Bellina
Croton-on-Hudson, N. Y.
Stauber, Robert August
R. D. 15, Groton, N. Y.

Steinberg, Abraham
620 Riverdale Avenue, Brooklyn, N. Y.

(8)

PHARMACEUTICAL CHEMISTS, JUNE 4, 1929

Aaronson, Irving
100 Humboldt Street, Brooklyn, N. Y.
Alderman, George Joseph
214 New Main Street, Yonkers, N. Y.

Amatucci, Laura
1860 84th Street, Brooklyn, N. Y.
Bauso, Felix
8315 Woodhaven Boulevard, Queens, N. Y.
Beck, Louis

Cresskill, N. J.

Berry, Isadore
76 Morgan Street, Springfield, Mass.
Biberfeld, Abraham Louis
150 17th Street, West New York, N. J.
Brown, Gustave Harold
884 Riverside Drive, New York, N. Y.
Bulda, Frank
262 Fifth Avenue, Astoria, N. Y.

Caniparoli, Olga
2529 Cambreling Avenue, New York, N. Y.
Carbonaro, John

2 McMaster Street, Auburn, N. Y.

Cherr, George
1703 Washington Avenue, New York, N. Y.
Cohen, Irving Samuel
1121 Tinton Avenue, New York, N. Y.

Costarella, Renato
5822 Fifteenth Avenue, Brooklyn, N. Y.
Davenport, Renald
Sweet Valley, Pa.
Dayharsh, Carroll Wells
105 Kensington Place, Syracuse, N. Y.

Del Vecchio, Henry William
1366 73d Street, Brooklyn, N. Y.

Edelstein, Victor Hugo
62 East 94th Street, New York, N. Y.
Edgars, Norman Kenneth
85 Hillside Avenue, Tenafly, N. J.

Ellena, Aldo Joseph
180 South Bergenline Avenue, Union City, N. J.

Erdtrachter, Jules
229 5th Street, New York, N. Y.

Fabrikant, Lawrence
1986 Clinton Avenue, New York, N. Y.

Falk, Herbert Bernard
709 East 24th Street, Paterson, N. J.

Fishbein, Isadore Leo
70 Carroll Street, Paterson, N. J.

Fisher, Jennie
314 Bay 10th Street, Brooklyn, N. Y.

Freedman, Ray Morris
7 West Glen Street, Glen Cove, N. Y.

Fries, Harry
1049 East 13th Street, Brooklyn, N. Y.

Ganeless, Percy
105 North Main Street, Liberty, N. Y.

Gatov, Louis
1749 Grand Concourse, New York, N. Y.

- Gerken, Frederick
133-08 Rockaway Boulevard, South Ozone
Park, N. Y.
- Glickfield, Peter Joel
14 Cecil Avenue, Glen Cove, N. Y.
- Gorenberg, David
690 East 158th Street, New York City, N. Y.
- Grasser, George Joseph
22 Florida Avenue, Arrochar, N. Y.
- Greenfield, Joseph
222 East 124th Street, New York, N. Y.
- Gulker, Jacob Henry
174 Clinton Street, New York, N. Y.
- Guss, Isidore Edward
1425 Eastern Parkway, Brooklyn, N. Y.
- Hands, Quentin Roosevelt
2533 Seventh Avenue, New York, N. Y.
- Harrison, Benjamin
197 Floyd Street, Brooklyn, N. Y.
- Hodes, Julius
53 East 182d Street, New York, N. Y.
- Hoyte, Lewis Prescod
169 St. Nicholas Avenue, New York, N. Y.
- Ingegno, Henry Peter
413 2d Street, Brooklyn, N. Y.
- Iozzia, Theresa
127 Beech Street, Paterson, N. J.
- Ironson, Hyman
1265 Gerard Avenue, New York, N. Y.
- Isgar, William
95 Barrett Street, Brooklyn, N. Y.
- Jae, Hok Yin
522 West 147th Street, New York, N. Y.
- James, Edith Genevieve
588 Lenox Avenue, New York, N. Y.
- Kadish, Frank Bernard
21 South Dean Street, Englewood, N. J.
- Kaplan, Aaron
93 Granite Street, Brooklyn, N. Y.
- Kaplan, Herbert Benjamin
185 Bergen Avenue, Jersey City, N. J.
- Kerner, Emanuel Matthew
1968 68th Street, Brooklyn, N. Y.
- Kolk, Martin Irving
1550 50th Street, Brooklyn, N. Y.
- La Placa, Francis A.
316 Monroe Street, Hoboken, N. J.
- Levy, Alexander
556 Ashford Street, Brooklyn, N. Y.
- Levy, Julian S.
436 Eastern Parkway, Brooklyn, N. Y.
- Lipkowitz, Irving Myron
690 Monroe Street, Brooklyn, N. Y.
- Lo Russo, Joseph Franklyn
1883 West 13th Street, Brooklyn, N. Y.
- Lubin, Abraham Allan
1314 Mulberry Street, Scranton, Pa.
- Malament, Louis
316 South 4th Street, Brooklyn, N. Y.
- Mallon, Milton J.
372 Snediker Avenue, Brooklyn, N. Y.
- Margolies, Raymond Nathan
119 Lackawanna Avenue, Olyphant, Pa.
- Megibow, Louis
314 28th Street, Woodcliff, N. J.
- Miceli, Anthony William *VICCOR*
273 Ninth Avenue, New York, N. Y.
- Molbegat, Abner Irving
114-59 Farmers Boulevard, St. Albans, N. Y.
- Oaklander, Isidore
1315 Bronx River Avenue, New York, N. Y.
- Ortega, Louis Bernard
557 West 148th Street, New York, N. Y.
- Patrizio, Silvio
108-21 Union Hall Street, Jamaica, N. Y.
- Pekarsky, Benjamin
1965 Bryant Avenue, New York, N. Y.
- Pillone, Maria
Lincoln Avenue, Ridgefield Park, N. J.
- Race, Clarence Karst
45 Third Avenue, Bay Shore, N. Y.
- Reale, Victor Anthony
1569 78th Street, Brooklyn, N. Y.
- Reichman, Frances
648 Faile Street, New York, N. Y.
- Rosenberg, Abraham
4 Hinman Street, Middle Village, N. Y.
- Rosenberg, Isidor
197 10th Street, Long Island City, N. Y.
- Rossi, Filomena Florence
30 Macdougall Street, New York, N. Y.
- Rubenstein, Louis J.
85 Powell Street, Brooklyn, N. Y.
- Schlagel, Charles Jacob
18 Oak Street, Beacon, N. Y.
- Schmid, Frederick William
Hillside Avenue, Hillside, N. J.
- Schubert, Georgianna Agnes
21 East High Street, Bound Brook, N. J.
- Schuchman, David
210 Foster Avenue, Brooklyn, N. Y.
- Seitzman, Max
193 Howe Avenue, Passaic, N. J.
- Skasko, Stephen
61 Fairfield Avenue, Danbury, Conn.
- Soracco, Frank
15 South Main Street, Liberty, N. Y.
- Sorensen, Harry C.
517 East 26th Street, Brooklyn, N. Y.
- Sparacio, Carmel John
30 Harrison Avenue, Monson, Mass.
- Spitz, Morris Solomon
196 West Broadway, Paterson, N. J.
- Sporn, Arthur
431 East 83d Street, New York, N. Y.

- Steiner, David
55 East 88th Street, New York, N. Y.
- Stopen, Theodore
528 East 142d Street, New York, N. Y.
- Sugarman, Benjamin
1 Grant Place, Weehawken, N. J.
- Taylor, Esser Ormsby
433 South Seventh Avenue, Mount Vernon,
N. Y.
- Teichholz, Bernard S.
309 Madison Street, Passaic, N. J.
- Tisch, Leo
1411 Madison Avenue, New York, N. Y.
- Wagman, Meyer
651 East 220th Street, New York, N. Y.
- Wagner, Harry Frederick
8967 214th Street, Queens Village, N. Y.
- Waltz, Hugo Joseph
264 Morris Street, Union City, N. J.
- Wang, Sidney R.
683 Pennsylvania Avenue, Brooklyn, N. Y.
- Wilentz, Alexander
28 West Palisade Avenue, Englewood, N. J.
- Ya Deau, George James
23 West Ruby Avenue, Palisades Park, N. J.
- Yukelson, Arthur William
1209 Westchester Avenue, New York, N. Y.
- Zunz, Edward
242 28th Street, Union City, N. J.
- Zweig, Arthur
8 Pinehurst Avenue, New York, N. Y.
(101)

REGISTER OF STUDENTS, SESSION OF 1929-1930

GRADUATE COURSE

- Kennedy, Margaret H. Cambridge, N. Y.
- Steinberg, Abraham
465 Hinsdale Street, Brooklyn, N. Y.
(2)

FOURTH YEAR UNIVERSITY CLASS

- Aaronson, Irving
100 Humboldt Street, Brooklyn, N. Y.
- Brown, Gustave Harold
884 Riverside Drive, New York, N. Y.
- Bulda, Frank
262 Fifth Avenue, Astoria, N. Y.
- Caniparoli, Olga
1991 Bronxdale Avenue, New York, N. Y.
- Del Vecchio, Henry William
1366 73d Street, Brooklyn, N. Y.
- Dick, Lester Colby
98 Division Street, Keyport, N. J.
- Edelstein, Victor Hugo
601 West 149th Street, New York, N. Y.
- Falk, Herbert Bernard
709 East 24th Street, Paterson, N. J.
- Fisher, Jennie
314 Bay 10th Street, Brooklyn, N. Y.
- Givens, Horace T. F.
6 Cottage Place, Freehold, N. J.
- Glantz, Milton
355 Second Avenue, New York, N. Y.
- Jae, Hok Yin
Canton, China
- Kaplan, Herbert Benjamin
12 Audubon Avenue, Jersey City, N. J.
- Rockowitz, Louis
1636 76th Street, Brooklyn, N. Y.
- Rubenstein, Louis J.
85 Powell Street, Brooklyn, N. Y.

- Schmid, Frederick William
Box 286, Hillsdale Avenue, Hillsdale, N. J.
- Topilow, Jacob
155 West 29th Street, Bayonne, N. J.
- Tususian, Nishan
2423 Bathgate Avenue, New York, N. Y.
- Yukelson, Arthur William
1209 Westchester Avenue, New York, N. Y.
(19)

THIRD YEAR UNIVERSITY CLASS

- Benjamin, Irving
35 Brookside Place, New Rochelle, N. Y.
- Berest, Joseph
2435 Creston Avenue, New York, N. Y.
- Betzer, Clifford William
194-54 114th Road, St. Albans, N. Y.
- Canepa, John Joseph
111 Anderson Avenue, Scarsdale, N. Y.
- Carlat, Bernard
1914 East 18th Street, Brooklyn, N. Y.
- D'Avella, Bernardino Johnson
167 Parker Street, Newark, N. J.
- de Domenico, Ida
287 Bleecker Street, New York, N. Y.
- Eisenberg, Julius
Parksville, N. Y.
- Fisher, Sidney Alexander
701 Crotona Park North, New York, N. Y.
- Gaer, Bertram
641 Lafayette Avenue, Brooklyn, N. Y.
- Henkin, Samuel
1124 Elder Avenue, New York, N. Y.
- Jacobs, Julius
1281 Eastern Parkway, Brooklyn, N. Y.
- Keilin, Harry
2800 Bronx Park East, New York, N. Y.

- Kucker, George
1114 Magnolia Avenue, Elizabeth, N. J.
- Lichtenberg, Raymond
615 Hudson Street, Hoboken, N. J.
- Massarsky, Solomon
16 2d Street, Weehawken, N. J.
- Montesano, Benjamin
9 Green Street, Paterson, N. J.
- Moskowitz, Herman
40 Birch Street, Mount Vernon, N. Y.
- Muller, Alfred Carl
18-11 147th Street, Whitestone, N. Y.
- Nochimow, Eliezer
489 Willoughby Avenue, Brooklyn, N. Y.
- Novins, Henry
523 West 138th Street, New York, N. Y.
- Pagano, Alphonse Frederick
213 Van Brunt Street, Brooklyn, N. Y.
- Peskin, Benjamin
936 Intervale Avenue, New York, N. Y.
- Sacharow, Samuel Sachne
7111 Twentieth Avenue, Brooklyn, N. Y.
- Sadinsky, Hyman Benjamin
60 Maple Street, Norwich, Conn.
- Seldeen, Israel Barnett
204 Broadway, Amityville, N. Y.
- Seligman, Morris William
317 East 27th Street, New York, N. Y.
- Simcovitz, Robert
848 Belmont Avenue, Springfield, Mass.
- Stephanou, Eli
33 Thames Street, Norwich, Conn.
- Stevens, Eli
450 Bay Ridge Avenue, Brooklyn, N. Y.
- (28)
- THIRD YEAR COLLEGE CLASS
- Abrams, Michael Irving
428 26th Street, Guttenberg, N. J.
- Ackerman, Ruth
3271 Westchester Avenue, New York, N. Y.
- Allegra, Frank
25-76 44th Street, Astoria, N. Y.
- Alperstein, Hyman Meyer
216 East 10th Street, New York, N. Y.
- Anderson, Arthur Gustave
4 Travers Avenue, Mamaroneck, N. Y.
- Asbell, Joseph
1420 Nostrand Avenue, Brooklyn, N. Y.
- Bacchiani, Torquato
211 East 57th Street, New York, N. Y.
- Bambara, Aurelius John
1271 42d Street, Brooklyn, N. Y.
- Bardfeld, Gustave
9720 Jamaica Avenue, Woodhaven, N. Y.
- Bartha, John Anthony, Jr.
165 Hamilton Street, New Brunswick, N. J.
- Bauer, Max
400 8th Street, West New York, N. J.
- Bauer, Paul Edgar
249 Post Avenue, Westbury, N. Y.
- Berkowitz, Bernard
109 Eldridge Street, New York, N. Y.
- Beyer, Isadore
Spring Glen, N. Y.
- Bittar, Albert
5101 Sixth Avenue, Brooklyn, N. Y.
- Blatt, Jacob
3540 Rochambeau Avenue, New York, N. Y.
- Blumberg, Lester
180 Danforth Avenue, Jersey City, N. J.
- Boxer, Meyer
131 Rockaway Parkway, Brooklyn, N. Y.
- Bronzo, Ralph
2070 West 9th Street, Brooklyn, N. Y.
- Bussle, Harry
485 East 173d Street, New York, N. Y.
- Calabrese, Savino Daniel
826 Second Avenue, New York, N. Y.
- Capobianco, Dominick Thomas
506 Brook Avenue, New York, N. Y.
- Cassara, Anthony V.
1121 40th Street, Brooklyn, N. Y.
- Charnes, Randolph
495 East 174th Street, New York, N. Y.
- Chernoff, Max
607 Hopkinson Avenue, Brooklyn, N. Y.
- Cimino, John Anthony
1049 67th Street, Brooklyn, N. Y.
- Cipnic, Herman
111-11 Liberty Avenue, Richmond Hill, N. Y.
- Cohen, Bernard Martin
2001 Douglass Street, Brooklyn, N. Y.
- Cohen, Harry
561 West 163d Street, New York, N. Y.
- Cohen, Henry
325 Wallabout Street, Brooklyn, N. Y.
- Cohen, Isaac
591 East 141st Street, New York, N. Y.
- Cohen, Sidney
670 Garden Street, New York, N. Y.
- Cohen, William
726 Rockaway Avenue, Brooklyn, N. Y.
- Cohler, Meyer
537 West 141st Street, New York, N. Y.
- Coppola, Angelo
33-48 84th Street, Jackson Heights, N. Y.
- Costabile, Hugo
872 East 163d Street, New York, N. Y.
- Crafa, Mary P.
9412 Van Wyck Avenue, Richmond Hill, N. Y.
- Criscuolo, Andrew
792 Grand Avenue, New Haven, Conn.
- Davis, Benjamin Richard
3723 Eighteenth Avenue, Brooklyn, N. Y.

- Decter, Jacob
11 McDonough Street, Brooklyn, N. Y.
- Denker, Benjamin
1725 Fulton Avenue, New York, N. Y.
- Diamondstein, Joseph
1506 Walton Avenue, New York, N. Y.
- Dicker, Morris
237 East 5th Street, New York, N. Y.
- Dier, Philip
2840 East 6th Street, Brighton Beach, N. Y.
- Dinin, Jack
139 Division Street, New York, N. Y.
- Dogan, Max
1594 East 10th Street, Brooklyn, N. Y.
- Dwoskin, Barney William
3001 West 24th Street, Coney Island, N. Y.
- Ellinson, Barnett
867 Crotona Park North, New York, N. Y.
- Epstein, Samuel Irving
2067 Haviland Avenue, New York, N. Y.
- Failla, Silvio Joseph
740 Main Street, North Bergen, N. J.
- Falk, Benjamin
312 Madison Street, New York, N. Y.
- Fazio, Ignatius
1618 77th Street, Brooklyn, N. Y.
- Feldman, Morris
120 Bristol Street, Brooklyn, N. Y.
- Fermaglich, Louis Joseph
67 Sheriff Street, New York, N. Y.
- Fialkow, Benjamin
547 Howard Avenue, Brooklyn, N. Y.
- Firemark, Samuel
107-57 Union Hall Street, Jamaica, N. Y.
- Flaherty, Sister Mary Oswald
Marywood College, Scranton, Pa.
- Flaumenbaum, Irving
1454 East 14th Street, Brooklyn, N. Y.
- Fleissig, Arthur
378 East 10th Street, New York, N. Y.
- Flexer, Isidore
581 George Street, New Haven, Conn.
- Florence, Paul Adrien
213 Pomander Road, Mineola, N. Y.
- Form, Milton
1828 Myrtle Avenue, Brooklyn, N. Y.
- Frager, Joseph Saul
27 Washington Place, Newburgh, N. Y.
- Frankel, Isidore Isaac
156 Second Avenue, New York, N. Y.
- Frankfort, Morris
1980 East 26th Street, Brooklyn, N. Y.
- Fried, Emanuel
1584 East 172d Street, New York, N. Y.
- Friedberg, Irving
522 Christopher Avenue, Brooklyn, N. Y.
- Gellar, Henry
1003 Clarkson Avenue, Brooklyn, N. Y.
- Getzlek, George
Richfield Springs, N. Y.
- Gitlin, Benjamin
274 East 175th Street, New York, N. Y.
- Glick, Percy
2716 Hubbard Street, Brooklyn, N. Y.
- Gluck, Morton
1560 Amsterdam Avenue, New York, N. Y.
- Gold, Morris
1096 West Farms Road, New York, N. Y.
- Goldfarb, Samuel
630 West 172d Street, New York, N. Y.
- Gralewski, Walter Joseph
757 41st Street, Brooklyn, N. Y.
- Greenstein, Edward
361 Van Sicklen Avenue, Brooklyn, N. Y.
- Gressey, Henry
31-14 36th Street, Astoria, N. Y.
- Gualiaro, Vincent Francis
28 Harrison Avenue, Monson, Mass.
- Haimowitz, Benjamin
23 Tapscott Street, Brooklyn, N. Y.
- Hamburg, David
1011 Freeman Street, New York, N. Y.
- Hirschmann, Jonas
145 Belmont Avenue, Jersey City, N. J.
- Holzman, Jack
1200 First Avenue, New York, N. Y.
- Huber, Henry
5 3d Street, Weehawken, N. J.
- Huger, Charles
1421 Crotona Avenue, New York, N. Y.
- Hurwitz, Myer
1402 South McBride Street, Syracuse, N. Y.
- Jackson, Joseph
948 Tiffany Street, New York, N. Y.
- Jurow, Louis
Monticello, N. Y.
- Kanfer, Daniel
140 Wilson Street, Brooklyn, N. Y.
- Kaufman, George Sam
569 Saratoga Avenue, Brooklyn, N. Y.
- Klein, Joseph
1532 West 10th Street, Brooklyn, N. Y.
- Klorman, Joseph
152 East 96th Street, Brooklyn, N. Y.
- Kobelivker, Joseph
734 Saratoga Avenue, Brooklyn, N. Y.
- Koretsky, Leon
769 Willoughby Avenue, Brooklyn, N. Y.
- Koslowsky, David
1967 71st Street, Brooklyn, N. Y.
- Kosowsky, Milton Stanley
52 Summer Street, New London, Conn.
- Kossow, Solomon
81 East 108th Street, New York, N. Y.
- Kressel, Marcus
50 East 3d Street, New York, N. Y.
- Kyzr, Anton Louis
30-70 45th Street, Astoria, N. Y.

- Lacovara, George
754 East 215th Street, New York, N. Y.
- Lauria, Anthony
460 Fairmount Avenue, Jersey City, N. J.
- Lawentman, Julius
115 East 114th Street, New York, N. Y.
- Lerman, Nathan
Colchester, Conn.
- Lerner, Isadore
50 East 3d Street, New York, N. Y.
- Levine, Theodore
371 Crown Street, Brooklyn, N. Y.
- Liberman, Joseph Rudolph
1061 Intervale Avenue, New York, N. Y.
- Liebowitz, Harry C.
1154 College Avenue, New York, N. Y.
- Lindheim, Michael
4 Blake Avenue, Brooklyn, N. Y.
- Lissman, Harold
1815 Prospect Avenue, New York, N. Y.
- Loscalzo, Joseph V.
125 46th Street, Corona, N. Y.
- McDavid, Sydney Sigelman Alonzo
801 Freeman Street, New York, N. Y.
- Maggio, John
107 Ridgewood Avenue, Brooklyn, N. Y.
- Maisel, Milton
2025 Regent Place, Brooklyn, N. Y.
- Mandel, Charles
341 Wythe Avenue, Brooklyn, N. Y.
- Mandelblit, Morris M.
893 Lafayette Avenue, Brooklyn, N. Y.
- Manfré, Stephen
204 Baltic Street, Brooklyn, N. Y.
- Mariani, Faustina
3350 White Plains Avenue, New York, N. Y.
- Marion, Bernard
607 West 191st Street, New York, N. Y.
- Marra, Joseph Richard
11 Ohio Avenue, Port Washington, N. Y.
- Marshall, Lillian
851 Tinton Avenue, New York, N. Y.
- Matragrano, Anthony John
Bedford Hills, N. Y.
- Matthias, Eulalie Ravina
226 West 123d Street, New York, N. Y.
- Mazie, Jack
1061 Hall Place, New York, N. Y.
- Mazur, Samuel
359 Madison Street, New York, N. Y.
- Meiselman, Harold Engel
9 Northern Avenue, New York, N. Y.
- Miller, Bernard
1372 Grant Avenue, New York, N. Y.
- Millner, Samuel
73 Grafton Street, Brooklyn, N. Y.
- Mininberg, Harry
909 Kelly Street, New York, N. Y.
- Montesano, Benjamin
9 Green Street, Paterson, N. J.
- Mordente, Constance Florence
1127 Noble Avenue, New York, N. Y.
- Mordente, Josephine
1127 Noble Avenue, New York, N. Y.
- Moroch, David
2116 66th Street, Brooklyn, N. Y.
- Murdock, Peter C.
25 Amsterdam Place, Mount Vernon, N. Y.
- Mussawir, Alfred George
436 45th Street, Brooklyn, N. Y.
- Naftal, Benjamin Harold
329 East 94th Street, New York, N. Y.
- Napoliello, Joseph Francis
21 Grace Street, Jersey City, N. J.
- Nemiroff, Max Milton
1222 45th Street, Brooklyn, N. Y.
- Nestampower, Morris
485 East 95th Street, Brooklyn, N. Y.
- Nieparent, Morris
63 East 118th Street, New York, N. Y.
- Orkand, Sidney
2471 Morris Avenue, New York, N. Y.
- Paley, Jacob
102-44 Jamaica Avenue, Richmond Hill, N. Y.
- Papalinsky, Morris
1001 Lincoln Place, Brooklyn, N. Y.
- Pekarsky, Morris
14 Woodside Avenue, Brooklyn, N. Y.
- Peltz, Phillip William
319 27th Street, Newport News, Va.
- Platt, Max
953 East 174th Street, New York, N. Y.
- Posner, Albert Human
923 Fox Street, New York, N. Y.
- Pospisil, Rudolph Joseph
30-70 32d Street, Astoria, N. Y.
- Rabinowitz, Kalman
236 Madison Street, New York, N. Y.
- Ramo, Louis
34 St Marks Avenue, Rockville Center, N. Y.
- Reich, Bernard
163 Smith Street, Brooklyn, N. Y.
- Reife, William
1023 Hopkinson Avenue, Brooklyn, N. Y.
- Reisch, George F.
60 East Palisade Boulevard, Palisade Park, N. J.
- Rende, Alfonso Louis
723 East 229th Street, New York, N. Y.
- Robinson, Abraham
237 Hart Street, Brooklyn, N. Y.
- Ronick, Charles
1251 Wheeler Avenue, New York, N. Y.
- Ronsheim, Julian
808 West End Avenue, New York, N. Y.

- Rosenberg, David
Apt. E 63, 128 Goerck Street, New York, N. Y.
- Rosenberg, Hyman
337 Williams Avenue, Brooklyn, N. Y.
- Rosenberg, Irving
87 Siegel Street, Brooklyn, N. Y.
- Rosenberg, Isaac
1340 Grant Avenue, New York, N. Y.
- Rosenberg, Samuel
1175 East 9th Street, Brooklyn, N. Y.
- Rosenman, Herman
610 Concord Avenue, New York, N. Y.
- Rosenthal, William
55 West 110th Street, New York, N. Y.
- Rosmosky, Abraham
27 East 110th Street, New York, N. Y.
- Rothbaum, Milton
2800 Bronx Park East, New York, N. Y.
- Rothberg, Philip
1566 St Marks Avenue, Brooklyn, N. Y.
- Rothman, Abraham Herbert
1335 College Avenue, New York, N. Y.
- Rovner, Louis
416 Henry Street, Brooklyn, N. Y.
- Rubenstein, Arthur
505 Essex Street, Brooklyn, N. Y.
- Rubin, Benjamin
493 Second Avenue, New York, N. Y.
- Rubin, Harold
870 Riverside Drive, New York, N. Y.
- Safarik, Mildred Robas
95 Main Street, East Rockaway, N. Y.
- Saltzman, David
108 Moore Street, Brooklyn, N. Y.
- Saperstein, Milton
1519 Plimpton Avenue, New York, N. Y.
- Schechter, Hyman
418 East 5th Street, New York, N. Y.
- Schechter, Morris
348 East 9th Street, New York, N. Y.
- Scheer, John Jonas
1615 Townsend Avenue, New York, N. Y.
- Scher, Wilfred
1157 Manor Avenue, New York, N. Y.
- Scherer, Paul
126 East 2d Street, New York, N. Y.
- Schleider, Meyer K.
122 West 55th Street, Bayonne, N. J.
- Schneck, Max R.
2086 Bronx Park East, New York, N. Y.
- Scholefield, Charles Wesley
23 Ralph Street, Beacon, N. Y.
- Schulman, Solomon
814 East 166th Street, New York, N. Y.
- Schur, Sidney
2012 East 13th Street, Brooklyn, N. Y.
- Schwartz, Hyman
819 East 168th Street, New York, N. Y.
- Schwartz, Joseph George
250 East 30th Street, New York, N. Y.
- Scouras, Constantine
29 West 65th Street, New York, N. Y.
- Shapiro, Daniel
1518 East 172d Street, New York, N. Y.
- Sherman, Harold
1448 Fifth Avenue, New York, N. Y.
- Shub, Abraham
632 Vermont Street, Brooklyn, N. Y.
- Shucard, Jacob
920 Stone Avenue, Brooklyn, N. Y.
- Siderman, Morris
2784 East 7th Street, Brooklyn, N. Y.
- Siegel, Joseph
Ferndale, N. Y.
- Siegel, Solomon
512 East Taylor Street, Syracuse, N. Y.
- Silverman, Max
646 Bradford Street, Brooklyn, N. Y.
- Silverstein, George Jeremiah
12 Pinehurst Avenue, New York, N. Y.
- Singer, Max
296 Delancey Street, New York, N. Y.
- Slobin, Jacob
807 28th Street, Union City, N. J.
- Slutzkin, Frederick Israel
759 East 155th Street, New York, N. Y.
- Smith, Van Roy
Apt. 10, 130 West 142d Street, New York, N. Y.
- Spallucci, Michael
516 Wheatland Avenue, Bound Brook, N. J.
- Spanier, Irving
117 Clymer Street, Brooklyn, N. Y.
- Spetalnick, Max J.
1245 Ward Avenue, New York, N. Y.
- Spirko, Stephen Michael
5 Wilson Street, Jessup, Pa.
- Steinberg, Isidore
1180 47th Street, Brooklyn, N. Y.
- Steiner, Elias
880 East 178th Street, New York, N. Y.
- Stitzel, Louis
308 East 6th Street, New York, N. Y.
- Stolper, Morris
22 East 108th Street, New York, N. Y.
- Strauss, Morris
104-06 East 2d Street, New York, N. Y.
- Thompson, Joseph Henry
118 Eldridge Street, New York, N. Y.
- Tishler, George
1593 Prospect Place, Brooklyn, N. Y.
- Tobias, Meyer
537 Palisade Avenue, Jersey City, N. J.
- Troub, Louis
1728 Sterling Place, Brooklyn, N. Y.
- Tunis, Philip
212 East 105th Street, New York, N. Y.

Twersky, Mary
3406 Thirty-first Avenue, Long Island City,
N. Y.

Valerio, Leo Joseph
345 West 21st Street, New York, N. Y.

Vasiliades, Angelo
257 2d Street, Lakewood, N. J.

Webman, Larry
402 South 2d Street, Brooklyn, N. Y.

Weidenbaum, Ralph
248 East Houston Street, New York, N. Y.

Weinberg, Victor
1611 St. Marks Avenue, Brooklyn, N. Y.

Weinstein, Louis
1808 75th Street, Brooklyn, N. Y.

Weintraub, Hyman
57 Suffolk Street, New York, N. Y.

Winokur, Aaron
2223 Surf Avenue, Brooklyn, N. Y.

Wisztreich, Edward Odon
1592 First Avenue, New York, N. Y.

Wollenberg, Hamilton
1914 Nesmith Place, Astoria, N. Y.

Zeichner, Lewis Abraham
1258 Fteley Avenue, New York, N. Y.

Zunin, Louis
980 Sutter Avenue, Brooklyn, N. Y.

(227)

SECOND YEAR UNIVERSITY CLASS

Burch, Collingwood Vincent
228 West 137th Street, New York, N. Y.

Cassano, Caesar
2147 Washington Avenue, New York, N. Y.

Chesler, Morris
4338 Gunther Avenue, New York, N. Y.

Cohen, Gertrude
22 1st Street, Weehawken, N. J.

Fauci, Stephen Antonio
1669 79th Street, Brooklyn, N. Y.

Fehder, Paul
107-21 Union Hall Street, Jamaica, N. Y.

Feinberg, Solomon
2820 West 36th Street, Coney Island, N. Y.

Gain, Ethel Annie Louise
Jeffersonville, New York, N. Y.

Goldberg, Meyer
1091 Longfellow Avenue, New York, N. Y.

Hoffman, Bernard William
9127 St. Charles Court, Woodhaven, N. Y.

Levsky, William Samuel
2818 Heath Avenue, New York, N. Y.

Lipschitz, Leo
7007 Nineteenth Avenue, Brooklyn, N. Y.

Mar, George Kaye
296 Ellen Street, Winnipeg, Canada

Marcus, Irving
791 Troy Avenue, Brooklyn, N. Y.

Mehlsak, Harry Nathan
1985 Creston Avenue, New York, N. Y.

Merring, Harry Louis
35-68 North 163d Street, Flushing, N. Y.

Miller, Benjamin
91 Center Street, Ellenville, N. Y.

Orfuss, Abraham Jack
2920 West 27th Street, Brooklyn, N. Y.

Schwartz, Israel Charles
3 Maniton Avenue, Poughkeepsie, N. Y.

Smith, Henry
172-11 Highland Avenue, Brooklyn, N. Y.

Smith, Robert Jerome
143 Albany Avenue, Brooklyn, N. Y.

Vigdarowitz, Martin
65 East 99th Street, New York, N. Y.

(22)

SECOND YEAR COLLEGE CLASS

Abramson, Jacob
15 Stevens Street, White Plains, N. Y.

Achiron, Harold
54 Lewis Avenue, Brooklyn, N. Y.

Adelman, Rubin
761 Elton Avenue, New York, N. Y.

Aloisi, Frank
1226 Ward Avenue, New York, N. Y.

Anderson, Ometta Catharyn
321 Edgecomb Avenue, New York, N. Y.

Armband, Max
75 East 4th Street, New York, N. Y.

Arnowitz, Barnett
600 West 169th Street, New York, N. Y.

Avstreich, Albert
565 West 175th Street, New York, N. Y.

Barile, Emerico Alfred
235 West 67th Street, New York, N. Y.

Bateman, Edward Henry
36 North Street, Pulaski, N. Y.

Bauer, Charles William
249 Post Avenue, Westbury, N. Y.

Beghin, Frank
336 East 107th Street, New York, N. Y.

Belfer, Samuel
1706 Nelson Avenue, New York, N. Y.

Belinsky, Benjamin
62 East 119th Street, New York, N. Y.

Berkowitz, Aaron Joseph
106 West 61st Street, New York, N. Y.

Berlin, Joseph
106 Quincy Street, Passaic, N. J.

Berliner, Meyer
Great Neck, N. Y.

Bernstein, Sydney
2037 Hughes Avenue, New York, N. Y.

Birdslow, Kent Bishop
Lacona, N. Y.

Blank, George
1765 Walton Avenue, New York, N. Y.

- Bloom, Albert Sidney
58 Fairmount Street, Norwich, Conn.
- Bloom, Isidore
390 East 4th Street, New York, N. Y.
- Boghossian, Paul Der
488 New York Avenue, Union City, N. J.
- Bookstaber, Leo
32-42 33d Street, Long Island City, N. Y.
- Boxer, Louis
427 East 170th Street, New York, N. Y.
- Braswell, James Le Roy
265 Flatbush Avenue, Brooklyn, N. Y.
- Breimer, Julius Albert
429 East 168th Street, New York, N. Y.
- Brown, Charles Lloyd
2054 Fletcher Avenue, Fort Lee, N. J.
- Buono, Joseph
30 Cornelia Street, New York, N. Y.
- Calabrese, Theodore Vincent
3719 Foster Avenue, Brooklyn, N. Y.
- Calleo, Nicholas Benjamin
22 Van Wort Place, Jersey City, N. J.
- Capillo, Joseph Bruno
8717 94th Street, Woodhaven, N. Y.
- Caprio, Ralph
140 Parker Street, Newark, N. J.
- Carpinelli, Michael Joseph
281 Linden Avenue, Jersey City, N. J.
- Caruso, Mario
491 Warren Street, Brooklyn, N. Y.
- Cassera, Grace Leona
1531 68th Street, Brooklyn, N. Y.
- Catozzio, Peter
729 Adam Street, West New York, N. J.
- Cecere, Natale
431 28th Street, Woodcliff, N. J.
- Charlip, Abraham M.
877 Rutland Road, Brooklyn, N. Y.
- Chefetz, Hyman Herman
540 East 5th Street, New York, N. Y.
- Chernow, Jack
1162 52d Street, Brooklyn, N. Y.
- Chomsky, Isidore
1443 38th Street, Brooklyn, N. Y.
- Christman, Frederick Walter
34 Oak Street, Valley Stream, N. Y.
- Cohen, Abe
2147 Washington Avenue, New York, N. Y.
- Cohen, Alexander
470 Sheffield Avenue, Brooklyn, N. Y.
- Cohen, Charles
111 Tudor Place, New York, N. Y.
- Cohen, David
100 Wegman Parkway, Jersey City, N. J.
- Cohen, Frank
2216 Douglass Street, Brooklyn, N. Y.
- Cohen, Herman
1662 45th Street, Brooklyn, N. Y.
- Cohen, Joseph
110 Jersey Avenue, Port Jervis, N. Y.
- Cohen, Max
61 East 99th Street, New York, N. Y.
- DeMucci, Frank Robert
40-36 97th Street, Corona, N. Y.
- Dworkowitz, Jesse
420 Avenue S, Brooklyn, N. Y.
- Edelstein, Isadore
305 East Mine Street, Hazleton, Pa.
- Eichen, Nathan
180 Mercer Street, Jersey City, N. J.
- Eichler, Julian
31-11 85th Street, Jackson Heights, N. Y.
- Eichner, Jerome
51 Farrington Street, Flushing, N. Y.
- Eisenberg, Robert
1424 Parker Street, New York, N. Y.
- Epstein, Marvin Maurice
110 Walnut Street, Springfield, Mass.
- Epstein, Paul
72 Jackson Avenue, Jersey City, N. J.
- Evans, Max
364 Monroe Street, Brooklyn, N. Y.
- Feigelson, Irving
2838 West 19th Street, Coney Island, N. Y.
- Feinberg, Irving Bernard
469 Cleveland Street, Brooklyn, N. Y.
- Ferrara, Vincent
208 5th Street, Jersey City, N. J.
- Fialk, Robert
198 Hopkins Avenue, Jersey City, N. J.
- Fichiera, Michael
1511 Castle Hill Avenue, New York, N. Y.
- Ficks, Jacob
8675 Bay 16th Street, Brooklyn, N. Y.
- Fishberg, Murray Leonard
153 Morton Place, New York, N. Y.
- Fitzer, Aaron
1166 Theriot Avenue, New York, N. Y.
- Frank, Jacob
493 East 135th Street, New York, N. Y.
- Frankel, David
1156 Eastern Parkway, Brooklyn, N. Y.
- Frankel, Leonard Robert
764 Trinity Avenue, New York, N. Y.
- Frankel, Sidney
744 Hudson Avenue, West New York, N. J.
- Freed, Israel
285 Van Buren Street, Brooklyn, N. Y.
- Friedberg, Alexander
61 East 95th Street, New York, N. Y.
- Friedland, Peter Robert
3999 Dickinson Avenue, New York, N. Y.
- Gaal, Albert George
574 Manhattan Avenue, Brooklyn, N. Y.
- Garrambone, Carmelo Joseph
25-27 33d Street, Long Island City, N. Y.

- Geller, Isidore Benjamin
1218 Hoe Avenue, New York, N. Y.
- Gellis, Joseph
60 Trenton Avenue, White Plains, N. Y.
- Gerson, Alex
557 Kosciusko Street, Brooklyn, N. Y.
- Ginsberg, Mrs. Asna Mendelevska
53 West Tremont Avenue, New York, N. Y.
- Gise, Meyer
1862 75th Street, Brooklyn, N. Y.
- Giuliani, Arthur J.
12 Yale Avenue, Baldwin, N. Y.
- Glazer, Harry
1857 Washington Avenue, New York, N. Y.
- Glick, William Joseph
1649 Coventry Road, Cleveland, Ohio
- Gline, William
1701 Eastburn Avenue, New York, N. Y.
- Godlin, Abraham
Woodbourne, N. Y.
- Gold, Joseph
1434 Bryant Avenue, New York, N. Y.
- Goldstein, Martin
505 Bergen Avenue, Jersey City, N. J.
- Goldstein, Max
871 Longwood Avenue, New York, N. Y.
- Gottlieb, George
310 East 30th Street, New York, N. Y.
- Grant, Raymond Lorenzo
120 Wait Avenue, Ithaca, N. Y.
- Greenfader, Morris Benjamin
2223 62d Street, Brooklyn, N. Y.
- Gutes, Morris Charles
17-27 Van Sicklen Avenue, Brooklyn, N. Y.
- Halper, Arthur Matthews
1055 University Avenue, New York, N. Y.
- Halper, Lewis
1208 Maple Avenue, Peekskill, N. Y.
- Halperin, Irving Max
419 Ocean Avenue, Jersey City, N. J.
- Hamann, George Peter Dietrich
398 Himrod Street, Brooklyn, N. Y.
- Hartman, Edward
123 Cornelia Street, Brooklyn, N. Y.
- Herbst, Arthur Stephan
340 East 77th Street, New York, N. Y.
- Hofman, Henry Conrad
305 Dill Place, Ridgewood, N. Y.
- Homer, Theodore Howard, Jr.
505 Lenox Avenue, New York, N. Y.
- Horowitz, Alexander
79 East 107th Street, New York, N. Y.
- Horowitz, Barnet
811 Avenue U, Brooklyn, N. Y.
- Horowitz, Samuel Louis
558 Vermont Street, Brooklyn, N. Y.
- Hubbard, Earl Edmund
63 Second Avenue, Bay Shore, N. Y.
- Jacaruso, John
150 Sullivan Street, New York, N. Y.
- Jacobs, Herman
296 Rochester Avenue, Brooklyn, N. Y.
- Jacobs, Meyer Jack
18 Pike Street, New York, N. Y.
- Jaffe, Max
Liberty N. Y.
- Kaplan, Samuel
520 Medbury Avenue, Detroit, Mich.
- Kaufman, Michael Israel
636 East 13th Street, New York, N. Y.
- Kaufman, Sydney William
27 River Avenue, Fairlawn, N. J.
- Keller, Murray
312 Madison Street, New York, N. Y.
- Kerewsky, Isidor
360 Garden Avenue, Mount Vernon, N. Y.
- Koslowsky, Harry
1439 East 37th Street, Brooklyn, N. Y.
- Kramer, Benjamin
1143 Longfellow Avenue, New York, N. Y.
- Kross, David Theodore
2937 West 35th Street, Brooklyn, N. Y.
- Kugelmass, Samuel
155 South 4th Street, Brooklyn, N. Y.
- Lampert, Samuel
447 Powell Street, Brooklyn, N. Y.
- Last, Ben
250 East Gunhill Road, New York, N. Y.
- Lehrer, Morris
186 Riverdale Avenue, Brooklyn, N. Y.
- Lepard, Thomas Horley
270 Seaman Avenue, New York, N. Y.
- Levine, Hyman Israel
433 Rockaway Parkway, Brooklyn, N. Y.
- Levine, Jonas
2282 East 7th Street, Brooklyn, N. Y.
- Levine, Samuel
801 West 181st Street, New York, N. Y.
- Levitt, Morris
8950 Woodhaven Boulevard, Woodhaven, N. Y.
- Lewitus, Richard
1542 Walton Avenue, New York, N. Y.
- Lifshitz, David
1800 Seventh Avenue, New York, N. Y.
- Lipetz, Morris
Elton Street, Riverhead, N. Y.
- Lipschitz, Edward
236 East 82d Street, New York, N. Y.
- Liss, Max
329 East 20th Street, New York, N. Y.
- Lopez, Anacleto
451 West 36th Street, New York, N. Y.
- Loss, Margaret
1581 Fulton Avenue, New York, N. Y.
- Lubin, Sydney Wellsorth
4214 Twelfth Avenue, Brooklyn, N. Y.

- MacCurran, James Francis
12 3d Street, Weehawken, N. J.
- McSharry, William
10 Dashby Court, Rockaway Beach, N. Y.
- Madansky, Nathan
260 Milford Street, Brooklyn, N. Y.
- Malmud, Mayer M.
4320 Sixteenth Avenue, Brooklyn, N. Y.
- Mancini, Thomas Anthony
316 East 29th Street, New York, N. Y.
- Marino, Frank Ermando
20-23 120th Street, College Point, N. Y.
- Marks, Edward Herman
1403 South Townsend Street, Syracuse, N. Y.
- Marotta, Raphael Anthony
2301 Thirty-fifth Avenue, Astoria, N. Y.
- Mascellaro, Hector Edward
111 Taylor Street, Long Island City, N. Y.
- Matthes, Herbert Max
209 12th Street, College Point, N. Y.
- Megna, John
1080 Sutter Avenue, Brooklyn, N. Y.
- Mersel, Joseph
92 Perry Street, New York, N. Y.
- Meyer, Morris
639 East 13th Street, New York, N. Y.
- Meyerson, Abraham
1041 Elder Avenue, New York, N. Y.
- Miller, Abraham
197 Van Buren Street, Brooklyn, N. Y.
- Mishler, Benjamin
52 Belmont Avenue, Brooklyn, N. Y.
- Monestersky, Morris
983 57th Street, Brooklyn, N. Y.
- Nelson, Isidore Ben
813 Center Street, Bowling Green, Ky.
- Newer, Joseph George
1514 Lincoln Place, Brooklyn, N. Y.
- Novendstern, David
130 Ocean Avenue, Jersey City, N. J.
- Ochitell, Morris
2921 36th Street, Brooklyn, N. Y.
- Oppenheim, Emanuel
4802 Fort Hamilton Parkway, Brooklyn, N. Y.
- Palanzo, Charles Rocco
134 Willow Street, Yonkers, N. Y.
- Perry, Harold
123 Rockaway Parkway, Brooklyn, N. Y.
- Perry, Sidney
123 Rockaway Parkway, Brooklyn, N. Y.
- Perveler, Martin Leo
1710 Hoe Avenue, New York, N. Y.
- Petziner, Norman
1225 Seneca Avenue, New York, N. Y.
- Pomerantz, Max
150 East 2d Street, New York, N. Y.
- Posner, Murray William
608 Tinton Avenue, New York, N. Y.
- Posner, Sidney
923 Fox Street, New York, N. Y.
- Razzo, Frances Mary Amelia
125 Second Avenue, New York, N. Y.
- Ricca, Joseph
330 Clinton Street, Brooklyn, N. Y.
- Ricciardi, Ralph
1957 West 4th Street, Brooklyn, N. Y.
- Risch, Samuel Saul
3052 La Salle Avenue, New York, N. Y.
- Riveles, George
63 East 100th Street, New York, N. Y.
- Riveles, Julius
385 East 3d Street, New York, N. Y.
- Rocco, Emilio John
27 St. Edwards Street, Brooklyn, N. Y.
- Rosenberg, Solomon
197 10th Street, Long Island City, N. Y.
- Rosenberg, William Nathaniel
945 West End Avenue, New York, N. Y.
- Rothleder, Paul
2869 West 27th Street, Brooklyn, N. Y.
- Rubin, Paul
630 Garden Street, Hoboken, N. J.
- Rubinstein, Jack
299 Mt. Eden Avenue, New York, N. Y.
- Sacco, John
P. O. Box No. 3, West End, N. J.
- Saia, Joseph John
7 Court Street, Astoria, N. Y.
- Sampson, James Harris
2347 Druid Hill Avenue, Baltimore, Md.
- Savitch, Milton
411 East 15th Street, New York, N. Y.
- Schloss, Max
1028 Simpson Street, New York, N. Y.
- Schneider, Nathan
283 Liberty Avenue, Brooklyn, N. Y.
- Schwartz, Abraham
2105 Black Rock Avenue, New York, N. Y.
- Schwartz, Isadore
69 Liberty Place, Weehawken, N. J.
- Schwartz, Max
624 Hopkinson Avenue, Brooklyn, N. Y.
- Schwartz, Sidney
256 Rivington Street, New York, N. Y.
- Seidel, Leo
1561 West 11th Street, Brooklyn, N. Y.
- Seppi, Dominick
319 3d Street, Fairview, N. J.
- Shefkowitz, Julius L.
1076 Faile Street, New York, N. Y.
- Silberman, Joel
585 East 169th Street, New York, N. Y.
- Silverman, Hyman
424 Chester Street, Brooklyn, N. Y.

- Simon, Irving Edward
878 East 176th Street, New York, N. Y.
- Simon, Moses Benjamin
137 Mansion Street, Poughkeepsie, N. Y.
- Smolowitz, Julius
1593 Madison Avenue, New York, N. Y.
- Snyder, Sol
535 West 163d Street, New York, N. Y.
- Soldo, Americo
419 East 160th Street, New York, N. Y.
- Somers, Joseph
1427 41st Street, Brooklyn, N. Y.
- Starman, Arthur Abraham
1202 Miller Street, Utica, N. Y.
- Stein, Irving
206 West 99th Street, New York, N. Y.
- Stein, Solomon Charles
1674 East 13th Street, Brooklyn, N. Y.
- Steir, Edward
172 East 7th Street, New York, N. Y.
- Strongin, Jack
105-20 75th Street, Ozone Park, N. Y.
- Tabachnick, William
1709 Bathgate Avenue, New York, N. Y.
- Tannenbaum, Nathan
52 Bay 22d Street, Brooklyn, N. Y.
- Tenebra, Mary
97-42 Corona Avenue, Corona, N. Y.
- Tiersfeld, Nathan
14-16 East 108th Street, New York, N. Y.
- Tomashoff, Sidney
4502 Sixteenth Avenue, Brooklyn, N. Y.
- Tortora, Anthony
194 Cambridge Avenue, Jersey City, N. J.
- Troisi, Mario Philip
2211 Second Avenue, New York, N. Y.
- Uva, Nicholas
138 Sackman Street, Brooklyn, N. Y.
- Valenti, Joseph
378 Fulton Avenue, Jersey City, N. J.
- Van Beuren, John Horace
81 Chambers Street, Newburgh, N. Y.
- Vellensky, Bernard
1437 40th Street, Brooklyn, N. Y.
- Volpert, Bernard Leon
P. O. Box 170, Newman, N. Y.
- Wagreich, Arthur
1216 Hoe Avenue, New York, N. Y.
- Waldinger, Sam Solomon
150 Keap Street, Brooklyn, N. Y.
- Wallerick, Solomon
82 Columbia Street, New York, N. Y.
- Wart, Arthur Henry
Sandy Creek, N. Y.
- Washington, Izetta L. A. (Mrs.)
321 Edgecomb Avenue, New York, N. Y.
- Weinberg, Louis Joseph
257 Columbus Avenue, New York, N. Y.
- Weinstein, Morris
1546 East 172d Street, New York, N. Y.
- Weiss, Harold
140 29 Cherry Avenue, Flushing, N. Y.
- Weiss, Martin
1521 Madison Avenue, New York, N. Y.
- Weiss, Samuel
2162 Valentine Avenue, New York, N. Y.
- Welt, Morton
2056 74th Street, Brooklyn, N. Y.
- Wiesenfeld, Irving
957 Fox Street, New York, N. Y.
- Williams, Clifford Albert
163 West 121st Street, New York, N. Y.
- Winer, Abe Martin
440 East 6th Street, New York, N. Y.
- Wise, Fred
928 Tiffany Street, New York, N. Y.
- Yablonowitz, Abraham
1154 Elder Avenue, New York, N. Y.
- Yachnowitz, Louis
120 Ludlow Street, New York, N. Y.
- Youran, Morris
645 West 160th Street, New York, N. Y.
- Zanca, Natale Louis
1320 Brook Avenue, New York, N. Y.
- Zanchelli, Gene Natalino
343 East 152d Street, New York, N. Y.
- Zimand, Philip
2024 Mermaid Avenue, Brooklyn, N. Y.
- Zweifach, Jacob
162 Lee Avenue, Brooklyn, N. Y.
- (238)

FIRST YEAR UNIVERSITY CLASS

- Armao, John Anthony
1024 Boston Road, New York, N. Y.
- Borutti, Paul
143 West 72d Street, New York, N. Y.
- Brown, Reginald C.
54 Hawthorne Avenue, Yonkers, N. Y.
- Chasanowitz, Bernard
96-28 Corona Avenue, Corona, N. Y.
- Clunie, Joseph Norman
441 Manhattan Avenue, New York, N. Y.
- Dichter, Pearl
10 Orchard Avenue, North Plainfield, N. J.
- D'Orazio, Robert Romeo
767 East 237th Street, New York, N. Y.
- Dorr, Elinor Utley
627 Delafield Avenue, West Brighton, N. Y.
- Ferraro, Joseph George
37 Spring Dell, Rutherford, N. J.
- Freedman, Samuel
69 East 105th Street, New York, N. Y.
- Givens, Johnson B.
6 Cottage Place, Freehold, N. J.

Goldsmith, Evelyn Georgette
602 Teasdale Place, New York, N. Y.
Hoeler, William J.
99 Rose Terrace, Newark, N. J.
Koller, Joseph Michael
340 East 85th Street, New York, N. Y.
Mont, Isadore
Mohegan Colony, Peekskill, N. Y.
Pfister, C. Leonard
49 East 19th Street, Brooklyn, N. Y.
Sasmor, Ernest Jackson
1227 Nelson Avenue, New York, N. Y.
Sher, Philip Benjamin
272 Crown Street, Brooklyn, N. Y.
Thomas, James Grant
Wells River, Vt.
Vernava, Anthony
134 White Street, New York, N. Y.
Vigilante, Ovidio Carl
40 Junction Boulevard, Corona, N. Y.
Wight, Christian Frank
Bethel, Conn.
Ziliotto, Enrico
121-20 Liberty Avenue, Richmond Hill,
N. Y.
Zlinkoff, Bernard Welch
233 West 112th Street, New York, N. Y.
(24)

FIRST YEAR COLLEGE CLASS

Alward, James Carleton
4 Wright Street, Port Jervis, N. Y.
Anapol, Annie
51 Hamilton Place, New York, N. Y.
Aponofsky, Anna
Broadway and Little Neck Road, Little
Neck, N. Y.
Avignone, Carlo James
Massapequa, N. Y.
Badagliacca, Vincent Anthony
130 George Street, Brooklyn, N. Y.
Bank, Louis
1468 White Plains Road, New York, N. Y.
Barbera, Anthony Joseph
549 Henry Street, Brooklyn, N. Y.
Bashevkin, Isaac
1012 Rutland Road, Brooklyn, N. Y.
Battaglia, John Joseph
544 Warren Street, Brooklyn, N. Y.
Beadle, Kenneth Gumaer
42 Henry Street, Kingston, N. Y.
Becker, Sidney Simon
2844 West 1st Street, Brooklyn, N. Y.
Belitz, Morris
501 West 175th Street, New York, N. Y.
Bellet, Louis
23-09 Astoria Boulevard, Astoria, N. Y.
Berg, Louis
2709 Webb Avenue, New York, N. Y.
Berkowitz, Efreml Leslie
3242 Bedford Avenue, Brooklyn, N. Y.
Bittar, Dewey
5101 Sixth Avenue, Brooklyn, N. Y.
Blick, Richard
864 Troy Avenue, Brooklyn, N. Y.
Bologh, Sidney David
862 Kelly Street, New York, N. Y.
Breiner, Charles Vincent
63 Linden Avenue, Middletown, N. Y.
Burton, Samuel
1471 St. Marks Avenue, Brooklyn, N. Y.
Busch, David Carlyle
227 East 203d Street, New York, N. Y.
Byrnes, Robert Edward
1 Caryl Avenue, Yonkers, N. Y.
Caso, Attilio Arthur
1209 Beach Avenue, New York, N. Y.
Chadkin, Jason Abraham
944 42d Street, Brooklyn, N. Y.
Chernick, Benjamin
178 East 95th Street, Brooklyn, N. Y.
Chu, Kang
10 Doyers Street, New York, N. Y.
Chung, Tzee Hugh
13 Queens Street, Hong Kong, China
Cohen, Benjamin
1264 Amsterdam Avenue, New York, N. Y.
Cohen, Elias
1824 McGraw Avenue, New York, N. Y.
Cohen, Max George
2164 Clinton Avenue, New York, N. Y.
Cohen, Morris
38-40 Herzl Street, Brooklyn, N. Y.
Colarusso, Thomas G.
22 Harrison Street, Mount Vernon, N. Y.
Coller, Gertrude Ethel
840 Castleton Avenue, West New Brighton,
N. Y.
Coller, Pearl
840 Castleton Avenue, West New Brighton,
N. Y.
Corbett, Ertis Lee
Box 14, North, S. C.
Cosenza, Salvatore
216 Union Street, Brooklyn, N. Y.
Costello, John Joseph
84 Livingston Avenue, Yonkers, N. Y.
Cowan, John Wesley
244 Palmer Avenue, Mamaroneck, N. Y.
Cuzzolino, Sylvia Rafaela
564 East 191st Street, New York, N. Y.
D'Arco, George Daniel
85 North Elliott Place, Brooklyn, N. Y.
De Angelis, Dominick Francis
1160 63d Street, Brooklyn, N. Y.
Denowitz, Jacob
107 Draper Street, Springfield, Mass.
Doctors, Albert
101-19 Vine Street, Corona, N. Y.

- Dubitsky, Jules
23 West 52d Street, Bayonne, N. J.
- Emrich, Ralph James
115 Maine Avenue, West New Brighton,
N. Y.
- Erwich, Irving Harold
11 Newin Street, Corona, N. Y.
- Failla, Alfred Vincent
740 Main Street, North Bergen, N. J.
- Fasolino, Mario
111 North Regent Street, Port Chester, N. Y.
- Fassy, Julius Milton
153 Delancey Street, New York, N. Y.
- Febbraio, Edmund
1877 Longfellow Avenue, New York, N. Y.
- Feinbaum, Harry
1410 Wilkins Avenue, New York, N. Y.
- Feinberg, Louis Julius
121 Dahill Road, Brooklyn, N. Y.
- Feitelberg, Morton
2101 Morris Avenue, New York, N. Y.
- Ferruggia, Dominick
1540 De Kalb Avenue, Brooklyn, N. Y.
- Florentino, Anthony Louis
1280 Bergen Street, Brooklyn, N. Y.
- Foley, Vincent Aloysius
915 Park Avenue, Hoboken, N. J.
- Friedman, Oscar
2 Webster Avenue, Jersey City, N. J.
- Frisch, Bernard
789 West End Avenue, New York, N. Y.
- Fromm, Kate
1226 Sherman Avenue, New York, N. Y.
- Gans, Sydney
48 Adelaide Street, Rye, N. Y.
- Garzetta, Carmel
101 3d Street, New Dorp, N. Y.
- Gershkowitz, Louis
415 Powell Street, Brooklyn, N. Y.
- Giuliano, Armida
728 East 187th Street, New York, N. Y.
- Glaser, Herman
442 Throop Avenue, Brooklyn, N. Y.
- Glaser, Jacob Julius
309 East 10th Street, New York, N. Y.
- Glassman, Edward Harry
1114 Fteley Avenue, New York, N. Y.
- Glick, Esther Henrietta
Central Valley, N. Y.
- Glotzer, Isadore George
1908 Prospect Avenue, New York, N. Y.
- Gnaizda, Samuel Joseph
93 Schenck Avenue, Brooklyn, N. Y.
- Goldberg, David
95 Newport Street, Brooklyn, N. Y.
- Goldberg, Isidore George
2266 Church Avenue, Brooklyn, N. Y.
- Goodnow, Alan Egbert
Nyando, N. Y.
- Goodrich, Minnie
2070 Creston Avenue, New York, N. Y.
- Gordon, Jacob
269 Rochester Avenue, Brooklyn, N. Y.
- Granet, Morris
395 Powell Street, Brooklyn, N. Y.
- Greenberg, Frank
344 Atlantic Avenue, Brooklyn, N. Y.
- Greenfield, Benjamin
618 East 140th Street, New York, N. Y.
- Grenadir, Hyman David
2232 Douglass Street, Brooklyn, N. Y.
- Guattery, Peter Joseph
181 Wickham Avenue, Middletown, N. Y.
- Gulli, Antoinette Rita
7714 Sixteenth Avenue, Brooklyn, N. Y.
- Gumer, Max Simon
274 Ormond Street, Rochester, N. Y.
- Gussow, Max
911 Tiffany Street, New York, N. Y.
- Haber, Alexander Charles
1822 Mohegan Avenue, New York, N. Y.
- Handsman, Harry Lerner
564 Linden Boulevard, Brooklyn, N. Y.
- Harris, Harry
83 Norfolk Street, New York, N. Y.
- Heiden, Eugenia
819 Trinity Avenue, New York, N. Y.
- Heller, John Andrew Paul
139 Montgomery Street, Poughkeepsie, N. Y.
- Henkin, Bernard
706 West 180th Street, New York, N. Y.
- Hicks, John
325 Madison Street, New York, N. Y.
- Hostomsky, Edward
106-18 Twenty-seventh Avenue, East Elm-
hurst, N. Y.
- Isaac, Louis
580 Fox Street, New York, N. Y.
- Izenberg, Leo
601 East 23d Street, Paterson, N. J.
- Kaplan, Jacob
165 Dewey Avenue, Pittsfield, Mass.
- Kasday, Julius
97-52 Corona Avenue, Corona, N. Y.
- Ketcham, George Vanderbilt
Gilbert Street, Northport, N. Y.
- Kirschenbaum, Samuel
421 East 10th Street, New York, N. Y.
- Koretsky, Fanny
359 West 45th Street, New York, N. Y.
- Kowalchik, Margaret
1119 South Main Street, Scranton, Pa.
- Kristal, Myer
1682 Third Avenue, New York, N. Y.
- Kwasniewski, Julian
158 Meserole Avenue, Brooklyn, N. Y.
- Le Blanc, Milton
78-15 Sixty-seventh Drive, Middle Village,
N. Y.

- Levy, Julius
1837 Clinton Avenue, New York, N. Y.
- Levy, Sarah Ida
512 36th Street, Union City, N. J.
- Liberali, Charles
10228 Eighty-eighth Avenue, Richmond Hill, N. Y.
- MacLennan, Daniel Grant
58 Manhasset Avenue, Manhasset, N. Y.
- Maduri, Elizabeth Virginia
164 Washington Park, Brooklyn, N. Y.
- Mahler, Henry
745 East 175th Street, New York, N. Y.
- Mavrogiannis, John George
885 East 181st Street, New York, N. Y.
- Mayhams, Joseph Mortimer
409 Orange Street, Georgetown, S. C.
- Messina, Anthony Pasquale
56-58 Macdougall Street, New York, N. Y.
- Miele, Louis W.
2153 82d Street, Brooklyn, N. Y.
- Milchman, David
167 Forbell Avenue, Brooklyn, N. Y.
- Milkowitz, Morris
195 South 4th Street, Brooklyn, N. Y.
- Miller, Abraham Henry
124 Second Avenue, New York, N. Y.
- Mills, Lawrence Guy
East Main Street, Chateaugay, N. Y.
- Mitchell, Walter Lawrence
34 Ashton Street, Charleston, S. C.
- Mufson, Morris
523 Gregory Avenue, Passaic, N. J.
- Naliboff, Edward Murray
216 East 67th Street, New York, N. Y.
- Namiat, Morris
112 East Broadway, New York, N. Y.
- Nardoza, Joseph Salvatore
413 Madison Street, Hoboken, N. J.
- Nelson, Lewis R.
813 Center Street, Bowling Green, Ky.
- Newman, Augustine
382 Broadway, Monticello, N. Y.
- Newman, Percy
North White Lake, N. Y.
- O'Connor, Harry Joseph
2540 Humphries Street, East Elmhurst, N. Y.
- Osterhoudt, Clifford Luther
65 Van Cortlandt Park Avenue, New York, N. Y.
- Padnis, Nathan
730 Oakland Place, New York, N. Y.
- Paley, Irving Benedict
916 Jefferson Avenue, Brooklyn, N. Y.
- Palitz, Mortimer
320 West 86th Street, New York, N. Y.
- Palloff, Isadore Irving
215 Fairview Avenue, Jersey City, N. J.
- Pavone, Egidio
31 Mt. Hope Place, New York, N. Y.
- Perelzweig, Samuel
1766 57th Street, Brooklyn, N. Y.
- Pfeffer, Alfred
1177 Nelson Avenue, New York, N. Y.
- Photoglou, George Michael
316 West 111th Street, New York, N. Y.
- Plotkin, Morris Louis
642 High Street, Newark, N. J.
- Pozdena, Milton Otto
6805 Woodside Avenue, Winfield, N. Y.
- Prucz, Harry
486 Ninth Avenue, New York, N. Y.
- Pucillo, Nataleen Virginia
Box 311, Tuxedo Park, New York, N. Y.
- Pushkin, George David
1691 Fulton Avenue, New York, N. Y.
- Rabinowitz, Ephraim
1845 Seventh Avenue, New York, N. Y.
- Rand, George
667 West 161st Street, New York, N. Y.
- Reddick, Aubert Evans
409 Edgecomb Avenue, New York, N. Y.
- Richman, Alexander
34 Montiet Street, Brooklyn, N. Y.
- Rocchio, Philip Paul
108-22 Forty-eighth Avenue, Corona, N. Y.
- Rosen, Abraham
1264 Amsterdam Avenue, New York, N. Y.
- Rosenberg, Hyman Fred
1530 Sheridan Avenue, New York, N. Y.
- Rosenberg, Mandel
4 Hinman Street, Middle Village, N. Y.
- Roshkofsky, Jack
2077 East 12th Street, Brooklyn, N. Y.
- Rovira, Frank
139 West 113th Street, New York, N. Y.
- Safarik, Joseph John
80 Grand Street, Springfield, Mass.
- Saks, Joseph Herman
396 Schenck Avenue, Brooklyn, N. Y.
- Salmeri, Frances Mary
1041 67th Street, Brooklyn, N. Y.
- Schansinger, Benjamin
6819 Morton Avenue, Middle Village, N. Y.
- Schnaer, Abraham Isador
473 Pennsylvania Avenue, Brooklyn, N. Y.
- Schweig, Harry Karl
1200 Leland Avenue, New York, N. Y.
- Simon, Isidore
3160 Coney Island Avenue, Brooklyn, N. Y.
- Simon, Samuel
1535 Minford Place, New York, N. Y.
- Singer, Frank Philip
1766 Washington Avenue, New York, N. Y.
- Soikin, David
1595 Macombs Road, New York, N. Y.

- Stack, Irving
631 Edgecomb Avenue, New York, N. Y.
- Stein, Abraham
864 Troy Avenue, Brooklyn, N. Y.
- Steinhauer, Bernard
1258 43d Street, Brooklyn, N. Y.
- Stiles, Richard David
2114 83d Street, Brooklyn, N. Y.
- Suslovich, Boris
69 Amboy Street, Brooklyn, N. Y.
- Taylor, Harold Lewis
62 Line Street, Charleston, S. C.
- Ticktin, George Beverley
431 Kingston Road, Toronto, Ont., Canada
- Tingling, Leslie
315 Edgecomb Avenue, New York, N. Y.
- Trovato, Michael Alexander
32-49 100th Street, Corona, N. Y.
- Umlas, Isidore
1027 Elder Avenue, New York, N. Y.
- Unger, Bernard
522 West 161st Street, New York, N. Y.
- Villone, Anna Rose
161 West 4th Street, New York, N. Y.
- Wallach, Lawrence
633 West 152d Street, New York, N. Y.
- Waugh, Theodore
79-34 Sixty-seventh Road,
Middle Village, N. Y.
- Weiss, Harry
854 Stone Avenue, Brooklyn, N. Y.
- Weiss, Stanley Daniel
30 Fairview Avenue, New York, N. Y.
- Werst, Francis Bernard
906 Cottage Place, Union City, N. J.
- Winokur, Emanuel
577 Bushwick Avenue, Brooklyn, N. Y.
- Wishner, Jacob
222 Marcy Avenue, Brooklyn, N. Y.
- Wishny, Gilbert
88 East 111th Street, New York, N. Y.
- Woien, David
1255 Brook Avenue, New York, N. Y.
- Wolff, Max
10809 Ditmars Avenue, East Elmhurst, N. Y.
- Wunsh, Theodore Eugene
1329 Fifth Avenue, New York, N. Y.
- Yarow, Harold
104-55 113th Street, Richmond Hill, N. Y.
- Yarvis, Samuel
415 Bradford Street, Brooklyn, N. Y.
- Zeichner, Harold
1258 Fteley Avenue, New York, N. Y.
- Zuckerman, Abraham
360 Beekman Avenue, New York, N. Y.
- Zykorie, Emil
114 Stanton Street, New York, N. Y.
(186)

ACADEMIC CALENDAR

1930

- June 9-Aug. 18. Summer Laboratory Courses.
Sept. 3-5. Registration for first-year candidates.
9-12. Supplementary Examinations.
17-18. Registration for second-, third- and fourth-year candidates.
22. Monday, One Hundred and First Session begins. Second-, Third- and Fourth-Year Classes assemble 9 a. m.
23. Tuesday, First-Year Classes assemble 9 a. m.
Oct. 6. Monday, Evening Courses start.
Nov. 4. Tuesday, Election Day, Holiday.
27. Thursday, to November 30, Saturday, inclusive. Thanksgiving Holidays.
Dec. 22. Monday, to

1931

- Jan. 3. Saturday, inclusive, Christmas Holidays.
5. Monday, Sessions resumed.
19-24. Mid-Year Examinations.
19. Monday, Second Semester, Evening Courses start.
Feb. 12. Thursday, Lincoln's Birthday, Holiday.
23. Monday, Washington's Birthday, Holiday.
Apr. 3-4. Spring Holiday.
6. Monday, All classes. Last day for applying for final examinations with payment of fee.
May 8. Friday, Evening Courses close.
12-18. Final Examinations, First-, Second-, and Third-year College and University Classes.
18-20. Final Examinations, Senior University Class.
27. Wednesday, First- and Second-Year Exercises (Alumni Day).
28. Thursday, College Commencement.
June 2. Tuesday, University Commencement.

SCHEDULE OF EXAMINATIONS

Supplementary Examinations

FIRST-YEAR COLLEGE AND UNIVERSITY CLASSES

1930

- Sept. 9. Tuesday, 9-12 a. m., *Phr. 1-2*, Pharmacy.
10. Wednesday, 9-12 a. m., *Chm. 3-4*, Chemistry.
Wednesday, 2-5 p. m., *Chm. 1-2*, Physics.

- Sept. 11. Thursday, 9-12 a. m., *M.M.* 1-2, Botany.
 Thursday, 9-12 a. m., *M.M.* 5-6, Posology.
 Thursday, 2-5 p. m., *Coll.* 1-2, English.
 Thursday, 2-5 p. m., *Coll.* 3-4, American government.

SECOND-YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 9. Tuesday, 9-12 a. m., *Phr.* 51-52, Theoretical pharmacy.
 Tuesday, 2-5 p. m., *Phr.* 61-62, Commercial pharmacy.
 10. Wednesday, 9-12 a. m., *Chm.* 55-56, Inorganic chemistry.
 Wednesday, 2-5 p. m., *Chm.* 51-52, Physics.
 11. Thursday, 9-12 a. m., *M.M.* 57-58, Physiology.
 Thursday, 9-12 a. m., *M.M.* 59-60, Microbiology.
 Thursday, 2-5 p. m., *Coll.* 51-52, German.

THIRD-YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 9. Tuesday, 9-12 a. m., *Phr.* 101-102, Theoretical pharmacy.
 Tuesday, 2-5 p. m., *Phr.* 107-108, Dispensing pharmacy.
 Tuesday, 2-5 p. m., *Coll.* 101-102, Mathematics.
 10. Wednesday, 9-12 a. m., *Chm.* 103-104, Organic chemistry.
 Wednesday, 2-5 p. m., *Chm.* 107-108, Newer remedies.
 Wednesday, 2-5 p. m., *Chm.* 101-102, Theories of chemistry.
 11. Thursday, 9-12 a. m., *M.M.* 101-102, Materia medica.
 Thursday, 2-5 p. m., *M.M.* 103-104, Toxicology.
 Thursday, 2-5 p. m., *M.M.* 109-110, Pharmacal sundries.
 12. Friday, 9-12 a. m., *Phr.* 109-110, Jurisprudence and business pharmacy.

Mid-Year Examinations and Tests

1931

- Jan. 19-24. A schedule of these examinations and tests will be posted on the bulletin boards. Students not in residence should consult the Registrar for information regarding them.

Final Examinations

FIRST-YEAR COLLEGE AND UNIVERSITY CLASSES

1931

- May 12. Tuesday, 9-12, *M.M.* 1-2, Botany.
 Tuesday, 9-12, *M.M.* 5-6, Posology.
 Tuesday, 9-12, *M.M.* 7-8, Posology.
 Tuesday, 2-5, *Chm.* 3-4, Inorganic chemistry.
 14. Thursday, 9-12, *Chm.* 1-2, Physics.
 Thursday, 2-5, *Phr.* 1-2, Pharmacy.
 16. Saturday, 9-12, *Coll.* 1-2, English.
 Saturday, 9-12, *Coll.* 3-4, American government.

SECOND-YEAR COLLEGE AND UNIVERSITY CLASSES

- May 11. Monday, 9-12, *Phr.* 51-52, Theoretical pharmacy.
Monday, 2-5, *M.M.* 57-58, Physiology.
Monday, 2-5, *M.M.* 59-60, Microbiology.
13. Wednesday, 9-12, *Chm.* 55-56, Inorganic chemistry.
Wednesday, 2-5, *Chm.* 51-52, Physics.
14. Thursday, 9-12, *Coll.* 51-52, German.
15. Friday, 9-12, *Phr.* 61-62, Commercial pharmacy.
Friday, 2-5, *Phr.* 53-54, Pharmaceutical Latin.

THIRD-YEAR COLLEGE AND UNIVERSITY CLASSES

- May 11. Monday, 9-12, *Chm.* 103-104, Organic chemistry.
Monday, 2-4, *Chm.* 107-108, Newer remedies.
12. Tuesday, 9-12, *Chm.* 101-102, Theories of chemistry.
Tuesday, 2-5, *Coll.* 101-102, Mathematics.
13. Wednesday, 9-12, *Phr.* 101-102, Theoretical pharmacy.
Wednesday, 2-5, *Phr.* 109-110, Jurisprudence and business pharmacy.
15. Friday, 9-12, *M.M.* 101-102, Materia medica.
Friday, 2-5, *M.M.* 103-104, Toxicology.
Friday, 2-5, *M.M.* 109-110, Pharmacal sundries.
18. Monday, 9-12, *Phr.* 107-108, Dispensing pharmacy.

FOURTH-YEAR UNIVERSITY CLASS

- May 18. Monday, 9-12, *Phr.* 151-152, Pharmacy.
Monday, 1-4, *Chm.* 151-152, Inorganic quantitative analysis.
19. Tuesday, 9-12, *Chm.* 153-154, Food analysis and toxicology.
20. Wednesday, 9-5, *Chm.* 155-156, Biological chemistry.
Wednesday, 9-5, *M.M.* 155-156, Physiology.

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Columbia University

BULLETIN OF INFORMATION

Thirty-first Series, No. 40

July 4, 1931

ANNOUNCEMENT OF THE

COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1931-1932



113-119 WEST 68TH STREET
NEW YORK

Columbia University Bulletin of Information

Thirty-first Series, No. 40

July 4, 1931

Issued weekly at Columbia University, Morningside Heights, New York, N. Y. Entered as second-class matter August 10, 1918, at the Post Office at New York, N. Y., under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

1. Reports of the President and Treasurer to the Trustees.
2. The Catalogue Number, the Directory Number and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C. U. P—18,000-1931

For special or more detailed information than is given in this Announcement, applicants are requested to address the Registrar of the College, 115 West 68th Street. His office hours are as follows: From September 1, 1931, to May 1, 1932, daily except Saturdays, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a. m. to 4 p. m.; Saturdays, 9:30 a. m. to 12 m.



COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

113-119 WEST SIXTY-EIGHTH STREET

Columbia University

in the City of New York

ANNOUNCEMENT OF THE

COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1931-1932



113-119 WEST 68TH STREET
NEW YORK

This college reserves the right to make such changes in the curriculum, schedule, calendar, and regulations appearing in this Announcement, as circumstances may require.

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1931

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Jan.	..	..	..	..	1	2	3	May	..	..	..	..	1	2		Sept.	..	..	1	2	3	4	5
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	11	12	13	14	15	16	17		10	11	12	13	14	15	16		13	14	15	16	17	18	19
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1932

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1933

Jan.	1	2	3	4	5	6	7	May	7	8	9	10	11	12	13	Sept.	..	..	..	..	1	2	
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OFFICERS AND TRUSTEES

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ELEANOR KERKER.....	<i>Assistant Registrar</i>
Messrs. SULLIVAN & CROMWELL, 49 Wall St., New York, N. Y.....	<i>Counsel</i>

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MARSTON TAYLOR BOGERT
Representing the University

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IRVING McKESSON, 1932	NATHANIEL NICOLAI, 1933
ALBERT E. STRATTON, 1932	HERMAN WALTER, 1933
THEODORE WEICKER, 1932	WILLIAM W. CONLEY, 1934
JACOB WEIL, 1932	ADOLPH HENNING, 1934
DAVID COSTELO, 1933	J. LEON LASCOFF, 1934
CHARLES S. LITTELL, 1933	S. BARKSDALE PENICK, 1934
	RICHARD H. TIMMERMANN, 1934

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FACULTY OF THE COLLEGE OF PHARMACY

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LESLIE JAYNE, Ph.Ch., B.S.....	<i>Assistant Professor of Chemistry</i>

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ALEITA HOPPING, A.B., Ph.D.	<i>Assistant Professor of Physiology</i>

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FRANK POKORNY, Ph.Ch.....	<i>Instructor in Materia Medica</i>
JOSEPH E. ADAMS, Ph.Ch., B.S.....	<i>Instructor in Materia Medica</i>
WILLIAM KEENAN, Ph.G.....	<i>Instructor in Materia Medica</i>
MILTON D. SEWELL, Ph.G., B.S.....	<i>Instructor in Chemistry</i>
JOSEPH P. MIALE, Ph.Ch.....	<i>Instructor in Pharmacy</i>
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VICTOR LEWITUS, Ph.G., B.S., A.M.....	<i>Instructor in Materia Medica</i>
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GEORGE D. MCJIMSEY, A.M.....	<i>Lecturer in English and American Government</i>
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ROGER HOWSON, M.A.....	<i>Librarian</i>
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CHARLES S. DANIELSON.....	<i>Bursar of the University</i>
HENRY LEE NORRIS, M.E.....	<i>Director of Works</i>
CLARENCE E. LOVEJOY, A.B.....	<i>Alumni Secretary</i>

COLUMBIA UNIVERSITY

Columbia University was founded in 1754 as King's College by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the College of Physicians and Surgeons with courses leading to the degree of Doctor of Medicine; the School of Engineering, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; the School of Library Service, with courses leading to the degrees of Bachelor of Science and Master of Science; Seth Low Junior College offering two and three years of collegiate work in preparation for admission to professional schools or to more advanced work in liberal arts and sciences in Columbia University; the non-professional Graduate Faculties of Political Science, Philosophy, and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy.

In addition to these schools and faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; the College of Pharmacy of the City of New York, with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science and Doctor of Pharmacy; St. Stephen's College, Annandale, New York, an undergraduate college for men with courses leading to the degree of Bachelor of Arts; and the Union Theological Seminary, whose faculty conducts certain University work leading to the degree of Master of Arts.

The University maintains three sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree. Home Study courses are also offered to persons who are unable to take work in residence.

ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma, is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standard of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the Announcement of each school will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The Announcements of each college or school, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

The Announcement of each school contains a schedule of fees and expenses for the courses in that school.

LIBRARY

The Library of the University contains about 1,214,524 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture rooms and laboratories. The Avery

Architectural Library, the law library, the Ella Weed Library of Barnard College, Teachers College library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

RESIDENCE HALLS

There are four Residence Halls for men on South Field: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Field, with accommodations of room and board for 360 students in the graduate and professional schools is a Residence Hall for women.

All the University Residence Halls, for both men and women, are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the Halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

INTERNATIONAL HOUSE

International House, 500 Riverside Drive, the home of the Inter-Collegiate Cosmopolitan Club, is maintained for men and women students from foreign lands and a limited number of American students. It accommodates 175 women and 325 men. It contains attractive restaurants and social rooms. Fees for the academic year range from \$185 to \$325. Inquiries should be addressed to the Committee on Admissions, International House, 500 Riverside Drive.

THE RESIDENCE BUREAU

Columbia University maintains a Residence Bureau to protect the students' interests and to assist students in finding the best accommodations obtainable in the University neighborhood. There is no charge made for this service. The Bureau will furnish upon request addresses of rooms which have been inspected. The University is in no way responsible for any private lodging house. Students desiring information regarding rooms outside of University Halls should address the Residence Bureau, Room M, Earl Hall, Columbia University.

KING'S CROWN HOTEL

The King's Crown, located at 420 West 116th Street in close proximity to the University, provides accommodations at reasonable rates, available for relatives and guests of members of the University community.

DINING FACILITIES

The University maintains a dining room for women students in Johnson Hall and a dining room and a grillroom for men students in John Jay Hall. In addition, the University maintains the following dining rooms (cafeteria service): the Commons (men and women), University Hall; Barnard Hall Lunch Room

(women), Barnard Hall; Teachers College Cafeteria (men and women), Grace Dodge Hall, 121st Street. All these dining rooms are under expert supervision and furnish wholesome food at moderate rates.

The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the offices of the Director of Earl Hall (Men's Residence Halls Office); the Residence Bureau; the Secretary of Appointments; and the Meeting Room. On the upper floor are the offices of the Chaplain of the University and his staff, and also an auditorium seating 400 people which is used by musical and dramatic organizations. The lower floor, entrance from Broadway, is occupied by the offices of the University Medical Officer.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the University Medical Officer. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.

MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists, and nursing care, will receive such information upon applying at the office of the University Medical Officer.

THE COLLEGE OF PHARMACY

IMPORTANT ANNOUNCEMENT

STATE BOARD REQUIREMENTS

It has been agreed among all the important state boards of pharmacy in the United States, with the exception of New York, that the degree of Graduate in Pharmacy, awarded for a course of less than four years will not be accepted from graduates matriculating after the year 1932. In certain of the states there is an additional demand that the college instruction be spread over five days of the week. It follows that students matriculating in the pharmacy schools of this state must pursue some other course than the Ph.G. course of three years, if they wish their diplomas to be recognized in other states. Our University Course of four years leading to the degree of Bachelor of Science in Pharmacy (see page 16) is more than equivalent to the four-year course required by other states. As stated above, our course provides 1056 hours annually of instruction for four years of 32 weeks each, the work occupying five days of each week.

GENERAL STATEMENT

The one hundred and second annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 21, 1931.

In May, 1930, our first graduates of the reorganized and extended three-year College Course received their diplomas. In the past, our two-year College Course, while giving thorough instruction in pharmacy, was not considered as of sufficient scope to be entitled to University standing, and its diplomas were issued by the College, independently. With the extension of the work to three years, this deficiency is eliminated, and the diplomas of this course will hereafter bear the University name.

THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the city. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus, and Amsterdam Avenue lines connect with nearly all surface lines in the city. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College building was erected in 1894, after a study of the principal buildings of the kind in this country and abroad. So great has been the increase in the applications for admission that it was found necessary in 1923 to provide greater accommodations in the form of an additional connecting building.

In its planning, two principal objects were kept in view: first, provision for a large increase in the membership of the first and second year classes; second, greatly increased and improved facilities for the work of the higher classes. In connection with the latter, extensive provision has been made for research

work, by both Faculty and special students. Our library has also been greatly improved, the entire lower floor of the new building having been reserved for its accommodation.

THE LIBRARY

The library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy.

Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the general Library of Columbia University on Morningside Heights, libraries of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great library of the Surgeon-General's office at Washington.

The library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library copies of the textbooks in use by the College may not be removed from the library.

INFORMATION BUREAU

The information bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the Bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service.

1. Telephone inquiries will be answered without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the information bureau, Trafalgar 7-1733, and will receive information immediately if it is accessible.
2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.
3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.
4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical, or botanical periodicals will be prepared for those desiring to pay for such service.
5. As in the past, all visitors to the library, desiring to do their own research work, will be given courteous attention.

EMPLOYMENT FOR STUDENTS

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

Any student wishing to secure employment should, upon entering the College, communicate with the Registrar.

Within easy reach of the College are some three thousand pharmacies, where students who have had some experience in pharmacy may obtain employment with salary sufficient to pay the whole or a large part of their expenses while attending College.

APPLICATION FOR ADMISSION

Every candidate for admission to the College of Pharmacy is required to file with the Registrar of the College a personal application and a transcript of his high school record, blank forms for which can be had upon application. He is also required to file an approval of his application for a pharmacy student qualifying certificate *before he can be accepted*, and he must secure the apprentice license before his matriculation can be considered complete.

NEW YORK STATE QUALIFYING CERTIFICATE

To be entitled to a pharmacy student qualifying certificate, the applicant must be at least seventeen years of age, and must have been graduated from an accredited four-year high school course, or have covered courses acceptable to the Department of Education as a full equivalent thereof. A high school or other secondary school course of study will not be considered acceptable unless the applicant has received the school diploma, and unless his or her record includes

English, four years.

Science, two years.

Mathematics, two years.

Foreign language, two years.

History, one year.

Physiology, one-half year (unless the two years of science include biology or general science).

Civics, one-half year.

Sufficient electives to make up a full four-year course aggregating 15 units.

The fulfillment of these requirements must be officially guaranteed by a qualifying certificate issued by the New York State Department of Education. If the applicant is entitled to receive the certificate, he will be so notified by letter; which letter should be presented to the Registrar of the College of Pharmacy. Blank forms for making application for the certificate may be secured either from the Registrar's office or from the Department of Education at Albany.

APPRENTICE LICENSE

The apprentice license should be applied for when the candidate commences his experience in a pharmacy or drug store. Those who have had no experience before entering the pharmacy school, or whose experience has been in a drug store

or pharmacy outside of New York State, will make application for their licenses through the school during the first week of the course, the Registrar acting as "preceptor." Blank forms for making application for the apprentice license may be secured either from the Registrar's office or from the Board of Pharmacy at Albany, N. Y.

HEALTH CERTIFICATE

All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. Appropriate blanks are furnished by the Registrar of the College.

COURSES OFFERED

Two regular courses of study are offered, known respectively as the College Course and the University Course, and three evening courses in the Departments of Materia Medica, Pharmacy, and Chemistry.

THE COLLEGE COURSE

This course now comprises three full years of professional work, and is designed to fit the graduate for meeting the educational requirements of the State Board. Attention is directed to the first paragraph on page 13, under the heading, "State Board Requirements." The fundamental idea of this increase in time is generally accepted as being that of improving the quality of the work done, rather than of providing a large amount of additional work, this improvement applying particularly to the practical features of the course. The precise object of a course leading to the degree of Graduate in Pharmacy being to prepare such graduates for meeting the conditions of service in a retail pharmacy, the greater portion of the increased time has been assigned to the Department of Pharmacy, and to those features of the work of the other departments which are directly contributory thereto. After a careful study of the requirements, we have concluded that the time officially assigned for this course is insufficient, and we have added 128 hours for laboratory work in commercial and dispensing pharmacy.

Experience has shown the value of the courses in microbiology and pharmacological sundries which were introduced in the three-year program. While both of these topics are correlated to materia medica, from the teaching standpoint they can be more adequately treated as separate subjects. Through the courtesy of several friends of the College, extensive exhibits of sundries, sick-room supplies, and biological products are gradually being acquired.

THE UNIVERSITY COURSE

The Department of Health of the City of New York has placed the Bachelor of Science in Pharmacy, graduating from this course, in the position of being eligible to conduct a bacteriological laboratory or to fill similar positions.

The attention of prospective students is directed to the increasing call for graduates of advanced courses, to fill other professional positions. The general appli-

cation of Federal, state, and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which formerly were often left to incompetent and irresponsible employees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

To meet these higher requirements, three-, four- and six-year courses of study, leading respectively to the degrees of Pharmaceutical Chemist (Ph.Ch.), Bachelor of Science in Pharmacy (B.S. in Phar.), and Doctor of Pharmacy (Phar.D.) have been established.

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. To members of the University Class only are open certain of the University privileges.
2. The University Class attends on five days weekly, and the course includes regular work in academic subjects, conducted by special instructors supplied by the Dean of the Faculty of Columbia College.
3. For the University Class, the College provides a thorough course of laboratory instruction in advanced chemistry, pharmacy, and physics and special courses in microscopy and bacteriology, consisting of both theoretical and laboratory instruction.
4. Our graduate course, leading to the degree of Doctor of Pharmacy, is open only to graduates of the four-year University Course.
5. Not only are the degrees of Pharmaceutical Chemist and Bachelor of Science recognized as of higher rank than that of Graduate in Pharmacy, but the three- and four-year courses for which they are awarded qualify its recipients for many lines of pharmaceutical work that are not open to graduates from the College Course.

GRADUATE COURSE

This course, leading to the degree of Doctor of Pharmacy, is open to graduates with the baccalaureate degree, conferred by this college or by other schools of pharmacy maintaining equivalent courses of study. The course consists of two full years of study in residence. Thirty hours weekly are occupied in research work in the department representing the major subjects, and three hours weekly in each of the other two departments. For this session, not more than two students will be matriculated in each of the three departments.

ENTRANCE REQUIREMENTS

COLLEGE COURSE

To be eligible for admission, the candidate must be at least seventeen years of age, and must meet the requirements for the pharmacy student qualifying certificate, as outlined on page 15.

THE UNIVERSITY COURSES

These are courses of full academic years (September to June) leading to graduation with the other departments of the University, and to the degree of Pharmaceutical Chemist, conferred by the University, at the end of the third year, and to that of Bachelor of Science in Pharmacy at the end of the fourth.

The requirements for admission to this course are the same as those for Columbia College. The student must be seventeen years of age, must have graduated from a high school within or outside of the state of New York that is accredited by the Education Department of this state, and must present a pharmacy student qualifying certificate from the Education Department of this state, as outlined on page 15.

Applications for admission to the 1931-1932 session of the University Course should be filed on or before September 8, 1931.

Under this course, two programs are offered, one leading to the degree of Pharmaceutical Chemist, and one to the degree of Bachelor of Science in Pharmacy.

The evidence of adequate preparation for admission to the University Course in the subjects required on the part of candidates who have not completed a year of college work, *includes both examination and school records.*

The subjects which candidates may offer in fulfillment of these requirements are outlined below. (A "unit" implies the study of a subject for a time equivalent to five hours weekly for one year.)

PRESCRIBED SUBJECTS

All candidates *must* offer:

ENGLISH	{ 1 (grammar and composition)	2 units
	{ 2 (literature)	1 unit
MATHEMATICS	{ <i>ai</i> (algebra to quadratics)	1 unit
	{ <i>aii</i> (quadratics and beyond).	1 unit
	{ <i>c</i> (plane geometry)	1 unit

EITHER

(1) Latin¹ 4 units

OR

(2) { Latin, Greek, French, German, Spanish or Italian 3 }
 { Physics or chemistry 1 } 5 units
 { History 1 }

ELECTIVE SUBJECTS, to make up 15 units 4 or 5 units

ELECTIVE SUBJECTS

Group I

The candidate may offer any of the following subjects not included among his prescribed subjects, without other restriction than that to offer an advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject.

¹ Greek, 3 units, may be substituted for Latin, in which case 6 elective units must be offered.

Biology—See Zoölogy	
The English Bible	1 unit
Elementary Greek	2 or 3 units
Elementary history	1 or 2 units
Drawing (freehand or mechanical)	1 unit
Music	1 unit
Intermediate French	1 unit
Intermediate German	1 unit
Intermediate Italian	1 unit
Intermediate Spanish	1 unit
Advanced French	1 unit
Advanced German	1 unit
Social science	1 unit
Advanced Spanish	1 unit
Advanced mathematics (College)	$\frac{1}{2}$, 1 or $1\frac{1}{2}$ units
And in the case of candidates not offering 4 units in Latin:	
Elementary Latin	2 or 3 units

Group II

The candidate may offer not more than 4 units in all from the four subjects following:

Elementary French	2 units
Elementary German	2 units
Elementary Italian	2 units
Elementary Spanish	2 units

Group III

The candidate may offer not more than 3 units in all from the six subjects following:

Botany	1 unit
Chemistry	1 unit
Physics	1 unit
Physiography	1 unit
Shopwork	1 unit
Zoölogy	1 unit

NEW METHOD

Under the "new method," candidates whose school and character records are entirely satisfactory, may meet the examination requirements by means of a psychological test. The school course must include three units in English, three in mathematics (elementary and intermediate algebra and plane geometry), and at least three units in a foreign language, ancient or modern. It must have been concerned primarily with languages, science, mathematics, and history.

OLD METHOD

Under the "old method," the examination requirements for admission may be satisfied by any one of the three following means, or any approved combination thereof.

1. By the examinations of the College Entrance Board, held in June of each year at Columbia University and at about 150 other educational centers in the United States and abroad.

2. By the examinations conducted at Columbia University in September of each year, by the Director of University Admissions.

(The examination grades in connection with the above two methods are interpreted in the light of the record which students have made in school.)

3. By the examinations given in the high schools by the Education Department of the state of New York to students who have satisfactorily completed certain courses in these high schools. In these examinations, seventy-five per cent will ordinarily be regarded as the lowest passing mark.

For candidates qualifying for admission on the basis of examinations before Columbia University or the College Entrance Board, two methods are open:

a. *Examination in Fifteen Units.* A candidate may offer examinations in fifteen units as evidence of his preparation in secondary school subjects.

b. *Four-Examination Plan.* A candidate who has completed a satisfactory secondary school course with a high degree of proficiency may, by special permission, satisfy the examination requirement by means of "comprehensive examinations" in not less than four subjects including those prescribed for admission.

Candidates entering by the old method are required to take the psychological examination for purposes of record only.

Those contemplating the September, 1931, examinations, must file their applications with the Secretary of Columbia University on or before September 7, 1931. Those who contemplate taking the June, 1932, examinations, must file their applications with the Secretary of the College Entrance Board at 431 West 117th Street, New York, N. Y., early in May. Blank forms of application for either series of examinations may be secured from the respective secretaries.

Every candidate for admission to the University Course should secure a copy of the current Bulletin on Entrance Examinations and Admission which may be had upon application to the Secretary of the University.

ADMISSION TO ADVANCED STANDING

Candidates may be admitted to advanced standing only upon a satisfactory record from their school of previous residence. Provided they are eligible for the pharmacy student qualifying certificate required by the New York State Department of Education, candidates who have completed, without condition, corresponding courses in a pharmacy school registered by the State Education Department, are eligible for admission to the second, third, or fourth years, respectively.

FEES

The fees to be paid by students are subject to change at any time in the discretion of the Trustees. The following schedule is in force for the 1931-1932 session or for students accepted in any of the regular courses leading to degrees.

<i>First, Second, and Third Years:</i>	<i>College Course</i>	<i>University Course</i>
Registration fee	\$5	\$5
Student activities	10	10
Breakage deposit	10	10
Examination fee	10	10
Tuition	250	300
Laboratory fees	45	60

Fourth Year:

Registration fee	5
Student activities	10
Breakage deposit	10
Examination fee	15
Tuition	300
Laboratory fees	60

Fifth and Sixth Years, Graduate Course

Registration fee	5
Breakage deposit	25
Examination fee	20
Tuition	350
Laboratory fees	60

Special Courses. Students desiring to pursue individual courses as special students will be required to pay at the rate of \$7.50 per point.

Summer Courses. The fee for any laboratory course is \$25 for first, second, and third year work in the College Course. In the University Course, the fee is \$25 for first and second year work and \$50 for third and fourth year work.

Evening Courses. The fees for the various evening courses will be found among the descriptions of these courses, beginning on page 46.

Books and Supplies. It is estimated that an expenditure of \$50 will cover the cost of the textbooks and necessary apparatus required for the entire College Course, and of \$75 for the entire University Course for the Ph.Ch. degree. The heaviest expenditure in all cases will be in the first year; many of the required reference works being used also in subsequent years.

METHODS OF PAYMENT

Regular Courses

One of three methods for the payment of the tuition fee for the year may be elected by the candidate, as indicated below. In this connection, it is to be noted that all are required to pay the registration fee, the breakage deposit, the student activities fee and the first installment of the tuition fee at the time of registration. The dates for registration in the various classes will be found in the academic calendar on page 70.

A. Pay in full at the time of registration.

B. Pay one half of the tuition fee at the time of registration, and the balance on or before January 4, 1932. Under this arrangement, an additional \$3 must be added to the first installment.

C. Pay one third of the tuition fee at the time of registration; one third on or before December 5, 1931, and the balance on or before February 8, 1932. Under this arrangement, an additional \$5 must be added to the first installment.

A student electing plan B or C makes himself liable to suspension from further attendance if he fails to meet the payments when due.

Second, third and fourth year students, who register after the last day set for their registration (see Academic Calendar) are required to pay an additional fee of \$5 for late registration.

Examination Fees. Dates upon which fees for examination in course are required will be found in the Academic Calendar.

The rate for reëxamination is on the basis of \$5 for each subject in September and \$10 for the entire series in the spring.

Rebates. The registration and student activities fees shall not be subject to rebate.

In the case of the total withdrawal of a student from the College, a partial return of the tuition fee may be authorized by the Trustees, but in no case shall more than two thirds of the total charge for that year be returned.

Special, Summer, and Evening Courses. Students registering in any of these courses are required to pay the tuition and other fees *in advance*.

METHOD OF INSTRUCTION

The instruction of each class during the first and second years of the College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College. During the third year, an additional half-day must be devoted to work in the pharmacy laboratory. All students who can do so are urged to devote their third year wholly to College work.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.

REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the bulletin boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

AUTHORITY OF THE DEAN

The Dean is the executive officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

DEAN'S OFFICE HOURS

Ordinarily the Dean will be found in his office at the hours given below. As he is frequently called out of the city, it is advisable to make important appointments by telephone.

During College Term

Tuesday at 2 p. m.

Wednesday to Saturday (inclusive) at 10 a. m.

During Summer Vacation

Tuesday, Thursday, and Saturday at 10 a. m.

REQUIREMENTS FOR ALL REGULAR STUDENTS

Attendance

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third and fourth year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during at least ninety per cent of the periods assigned to each course pursued. For being late twice at daily opening, the student will be charged with one absence.

For failure to meet this requirement, the student forfeits the privilege of presenting himself for examination in the course or courses in which the excessive absences occurred.

Advancement in Classes

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the passing mark being seventy-five per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations will be allowed to undergo supplementary examinations to be held as announced on page 70, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course of that year, provided, however, that such students may be refused readmission if, in the judgment of the Faculty, they are not qualified to be students of this college. A student who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer, except in special cases.

By a regulation of the State Education Department, students failing in more than one subject must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 1, 1931.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examinations on paying an additional fee of \$10 and complying with all other requirements.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination.

All students must obtain a rating of seventy-five per cent or higher in every department in which they may be examined. Any student failing in one or more departments, but not in laboratory courses, may present himself for reexamination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without reexamination in the other departments. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 46.

Students of the third year University Class failing in a laboratory course of a single department may be permitted to remove this failure during the Summer Laboratory Session. Students of this class failing in the laboratory courses of more than one department will be required to repeat in full those courses in which they fail, during the next regular session.

PRIZES AND SCHOLARSHIPS

Note. Competition for the Kappa Psi Prize, the Seabury Scholarship and the Plaut Fellowship is open only to those students who pursue their entire course at this college.

The College reserves the right to withhold the award of any scholarship or prize, if in its opinion, no candidate has exhibited qualifications justifying the award.

HONOR ROLL. The College Classes and the University Classes will have separate and distinct honor rolls.

For the College Classes, the roll is limited to thirteen candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the three Departments of Pharmacy, Materia Medica, and Chemistry will be the basis of computation for the general average.

For the University Classes, the roll is limited to three candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the four Departments of Pharmacy, Materia Medica, Chemistry, and the Cultural Courses will be the basis of computation for the general average.

TRUSTEES' PRIZES. The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100 each, for the highest rating secured in competitive examination in the three Departments of Chemistry, Pharmacy, and Materia Medica. These competitive examinations are open to those members of the graduating class who have attained positions on the honor roll of the College Course. (If the number of these honor students be less than thirteen, a sufficient number of graduates having the next highest averages to make that number will be permitted to compete for these prizes.) A certificate, stating the honor for which the prize has been awarded, is also presented to each of the recipients.

ALUMNI ASSOCIATION PRIZES. The Alumni Fund of the College of Pharmacy provides annually for a gold, a silver, and a bronze medal to be presented at Commencement to the three students having respectively attained the first, second, and third highest standings in all branches taught during the third year of the College Course.

The association also provides for five additional prizes awarded annually on Alumni Day to members of the first and second year classes of the College Course, as follows: *Torsion Balance*, awarded to that second year student who has secured the highest standing during the work of the two years; a copy of *The United States Dispensatory* to that student who has secured the highest standing during the work of the second year; a copy of Rusby, Bliss, and Ballard, *Properties and Uses of Drugs* awarded to that student securing the second highest standing in the work of the second year; a copy of Arny's *Principles of Pharmacy* to that student who has secured the highest standing in the work of the first year, and a copy of Sadtler, Coblentz, and Hostmann's *Pharmaceutical Chemistry* to that student who has secured the second highest standing in the work of the first year.

In the event that the winner of the *Torsion Balance* has the highest record for the second year, then *The United States Dispensatory* and the *Materia Medica* will be awarded respectively to the second and third member of the honor roll.

MAX J. BREITENBACH PRIZE. A cash prize of \$200, accompanied by a certificate, offered annually for the highest proficiency in the junior (third year) University Class. This prize is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach, for many years a devoted Trustee.

KAPPA PSI PRIZE. The Gamma Chapter of the Kappa Psi Fraternity offers annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

LILLIAN LEITERMAN PRIZE. A gold medal, offered annually by Miss Lillian Leiterman (1911), to that woman member of the graduating class who has maintained the highest standing throughout the entire three years of the College Course.

J. LEON LASCOFF PRIZES. Life membership in the American Pharmaceutical Association and in a state pharmaceutical association, offered annually by Trustee J. Leon Lascoff to the two members of the graduating class in the College Course who have been prominent in student activities, who have maintained a high degree of general scholarship, and who are adjudged by the Faculty to be worthy of such awards.

TRUSTEES' SCHOLARSHIPS. To the four students who maintain the highest proficiency in their respective classes during the first and second years of the College and University Courses, the Board of Trustees of the College annually awards scholarships for one year's tuition, to be applied to the following session of their respective courses.

GEORGE J. SEABURY SCHOLARSHIP. This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, Mr. George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the senior (fourth) year of the University Course, of that member of this class who has maintained the highest standing during the three years.

ISAAC PLAUT FELLOWSHIP. This fellowship for the encouragement of graduate study and original research was founded by Mr. Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this fellowship must have secured the degree of B.S. in Pharmacy at this college, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this college who will have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

The Fellow will be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He will attend a foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and will pursue a course of study approved by the Faculty. At the close of his incumbency he will present to the Faculty a written report of his work.

The fellowship payment will be made in three equal installments, one on June 15, one on November 1, and one on March 1, provided that the Fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he will forfeit all further privileges and emoluments conferred upon him by his appointment to the fellowship, and the Trustees of the College of Pharmacy may declare the fellowship vacant.

LOUIS SPENCER LEVY RESEARCH SCHOLARSHIP. This scholarship, established in 1928 for a period of two years by Mr. Louis Spencer Levy, will, through his continued generosity, be available for the two years beginning with the session

of 1931-1932. It affords free tuition for two years to that B.S. or Ph.Ch. who is deemed qualified by the Faculty to do research work and who will devote the greater portion of his time to investigations of the effect and usefulness of ultra-violet radiations in the field of essential oils and perfume materials, this work to be done under the direction of the head of the Department of Pharmacy.

E. R. SQUIBB PRIZE. This is an annual cash prize of \$100, offered by Messrs. E. R. Squibb and Sons, in memory of Dr. E. R. Squibb. It is awarded to that Graduate in Pharmacy who exhibits the greatest proficiency in analytical chemistry during his third year, as determined by the laboratory records.

LOUIS DOHME PRIZE. This is an annual cash prize of \$100, founded by Mr. Ernest Stauffen, in memory of Louis Dohme. It is awarded to that Graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopœia and National Formulary, as determined by the laboratory records and examinations.

JOSEPH WEINSTEIN PRIZE. This prize consists of a gold medal and is offered by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that Graduate in Pharmacy who has exhibited the greatest proficiency in analytical chemistry during the three years, as determined by the laboratory records.

ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that Graduate in Pharmacy who has obtained the highest general average in practical laboratory work during the third year.

LEHN and FINK PRIZE. This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the Graduate in Pharmacy attaining the highest average in the third year examinations in the Department of Pharmacy.

WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that member of the graduating class who has attained the highest general average in the practical laboratory work of the Department of Pharmacy during the three years of the College Course.

GERMAN APOTHECARY'S ASSOCIATION PRIZE. In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited during the final year of the College Course the greatest proficiency in the compounding of prescriptions.

OLSHANSKY MEMORIAL MEDAL. This is a gold medal, founded by the students of this college in attendance upon the session of 1923-1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in the final year of the College Course in the subject of dispensing pharmacy.

DIEKMAN PRIZE. This prize was founded in 1930 by the Dante Circle, in honor of Dr. George C. Diekman, Professor Emeritus of Pharmacy. It consists of a gold charm, and is awarded to that member of the graduating class who has

attained the highest average in the courses in theoretical pharmacy throughout the three years of the College Course.

NEW YORK STATE PHARMACEUTICAL ASSOCIATION PRIZE. A year's membership offered by the Association to a member of the Honor Roll not winning any other prize.

SYNOPSIS OF STUDIES FOR THE SESSION OF 1931-1932

COLLEGE COURSE

First Year

		Class Hours	Laboratory Hours	Points
<i>Chm.</i> 1-2	General physics	3	0	6
<i>Chm.</i> 3-4	Inorganic chemistry	3	0	6
<i>Chm.</i> 5-6	Analytical chemistry (qualitative)	0	3	3
<i>MM</i> 1-2	Botany	2	0	4
<i>MM</i> 3-4	Botany laboratory	1	4	6
<i>MM</i> 5-6	Posology	1	0	2
<i>Phr.</i> 1-2	Theory of pharmacy	3	0	6
<i>Phr.</i> 3-4	Manufacturing pharmacy	1	3	5

Second Year

<i>Chm.</i> 51-52	General physics	1	0	2
<i>Chm.</i> 55-56	Inorganic chemistry	3	0	6
<i>Chm.</i> 59-60	Analytical chemistry (acidic ions and volumetric)	0	3	3
<i>MM</i> 53-54	Pharmacognosy	0	3	3
<i>MM</i> 57-58	Human physiology and hygiene	2	0	4
<i>MM</i> 59-60	Microbiology	1	1	3
<i>Phr.</i> 51-52	Theory of pharmacy	1 ½	0	3
<i>Phr.</i> 53-54	Pharmaceutical Latin	1 ½	0	3
<i>Phr.</i> 55-56	Dispensing pharmacy	1	3	5
<i>Phr.</i> 61-62	Commercial pharmacy	3 1	2 2	6 14

Third Year

<i>Chm.</i> 103-104	Organic chemistry	3	0	6
<i>Chm.</i> 107-108	Newer remedies	2	0	4
<i>Chm.</i> 109 (110)	Analytical chemistry (advanced volumetric and pharmacopœial assaying)	0	6 ¹	3
<i>MM</i> 101-102	Materia medica	3	0	6
<i>MM</i> 103-104	Toxicology	1	0	2
<i>MM</i> 109-110	Pharmaceutical sundries	1	0	2
<i>Phr.</i> 101-102	Theoretical pharmacy	3	0	6
<i>Phr.</i> 103-104	Theoretical dispensing pharmacy	2	0	4
<i>Phr.</i> 105 (106)	Manufacturing pharmacy	0	6 ¹	3
<i>Phr.</i> 107-108	Dispensing pharmacy	0	4	4
<i>Phr.</i> 109-110	Pharmaceutical jurisprudence and business pharmacy	3	0	6

¹ During 16 weeks.

UNIVERSITY COURSE

First Year

		Class Hours	Laboratory Hours	Points
<i>Chm.</i> 1-2	General physics	3	0	6
<i>Chm.</i> 3-4	Inorganic chemistry	3	0	6
<i>Chm.</i> 7-8	Analytical chemistry (qualitative)	0	3	3
<i>MM</i> 1-2	Botany	2	0	4
<i>MM</i> 7-8	Posology	$\frac{1}{2}$	0	1
<i>MM</i> 9-10	Plant morphology and histology	1	4 $\frac{1}{2}$	6 $\frac{1}{2}$
<i>Phr.</i> 1-2	Theory of pharmacy	3	0	6
<i>Phr.</i> 3-4	Manufacturing pharmacy	1	3	5
<i>Phr.</i> 5-6	Dispensing pharmacy	0	2	2
<i>Eng.</i> 1-2	English	3	0	6
<i>Hist.</i> 1-2	American government	3	0	6

Second Year

<i>Chm.</i> 51-52	General physics	1	0	2
<i>Chm.</i> 54	Practical physics	0	4 ¹	2
<i>Chm.</i> 55-56	Inorganic chemistry	3	0	6
<i>Chm.</i> 57-58	Analytical chemistry (acidic ions and volumetric)	0	3	3
<i>MM</i> 55-56	Macroscopic pharmacognosy	0	2	2
<i>MM</i> 57-58	Human physiology and hygiene	2	0	4
<i>MM</i> 61-62	Bacteriology	1	2	4
<i>Phr.</i> 51-52	Theory of pharmacy	1 $\frac{1}{2}$	0	3
<i>Phr.</i> 53-54	Pharmaceutical Latin	1 $\frac{1}{2}$	0	3
<i>Phr.</i> 57-58	Dispensing pharmacy	1	3	5
<i>Phr.</i> 59	Manufacturing pharmacy	0	4 ²	2
<i>Phr.</i> 61-62	Commercial pharmacy	3 1	0 2	6 4
<i>Ger.</i> 51-52	German	5	0	10

Third Year

<i>Chm.</i> 101-102	Theories of chemistry	1	0	2
<i>Chm.</i> 103-104	Organic chemistry	3	0	6
<i>Chm.</i> 106	Analytical chemistry (advanced volumetric, pharmacopœial testing, and urine analysis)	0	16 ¹	10
<i>MM</i> 101-102	Materia medica	3	0	6
<i>MM</i> 103-104	Toxicology	1	0	2
<i>MM</i> 111-112	Microscopic pharmacognosy	$\frac{1}{2}$	1 $\frac{1}{2}$	2 $\frac{1}{2}$
<i>Phr.</i> 109-110	Pharmaceutical jurisprudence and business pharmacy	2	0	4
<i>Phr.</i> 111	Manufacturing pharmacy	0	13 ³	5
<i>Phr.</i> 113	Practical dispensing pharmacy	0	3 ³	2
<i>Phr.</i> 115-116	Theoretical pharmacy	3	0	6
<i>Math.</i> 101	Solid geometry	3	0	3
<i>Math.</i> 102	Trigonometry	3	0	3

¹ During 19 weeks.² During 16 weeks.³ During 12 weeks.

Fourth Year

<i>Chm. 151-152</i>	Inorganic quantitative analysis	1	29 ³	10
<i>Chm. 153-154</i>	Food analysis and toxicology	1	29 ³	10
<i>Chm. 155-156</i>	Biological chemistry	1	0	2
<i>MM 152</i>	Applied pharmacognosy	2	21 ³	6½
<i>MM 154</i>	Botanical taxonomy	0	6 ³	1½
<i>MM 155-156</i>	Human physiology	1	0	2
<i>Phr. 151-152</i>	Advanced pharmacy	1	0	2
<i>Phr. 153-154</i>	Pharmaceutical assaying	0	7 ³	7
<i>Bibl. 151-152</i>	Pharmaceutical bibliography	1	0	2

³ During 8 weeks.

COURSES OF INSTRUCTION

CHEMISTRY

Chemistry 1-2—General physics (for University freshmen and first year College students). Lectures and recitations 3 hours, 6 points. Professor A. TAUB and instructors.

The first semester of this course covers the subjects of mechanics, the kinetic molecular theory, the properties of matter, heat, wave motion, and sound.

The second semester embraces the subjects of magnetism, electricity and light. Particular consideration is given to the electron theory, electrolysis, ionization of gases, spectroscopy and polarization.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of modern physical apparatus.

Textbook: Stewart, *College Physics*.

Chemistry 3-4—General inorganic chemistry (for University freshmen and first year College students). Lectures and recitations 3 hours, 6 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, the beginning of consecutive instruction in chemistry covering three years, is given to the first year students of both the College and the University Classes. It opens with a careful consideration of the fundamental principles of chemistry followed by a discussion of the non-metals and their compounds from their cultural, technical, and pharmaceutical viewpoints.

Textbooks: Deming, *General Chemistry*, second edition; *U. S. Pharmacopœia*.

Chemistry 5-6—Analytical chemistry (first year College students). Laboratory 3 hours, 3 points. Professors H. H. SCHAEFER, L. JAYNE and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized and separations and identifications of group members are performed. Finally, all facts required by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on unknown samples.

Textbook: Schaefer and Bliss, *Qualitative Chemical Analysis*.

Chemistry 7-8—Analytical chemistry (for University freshmen). Laboratory 3 hours, 4 points. Professor H. C. KASSNER and instructors.

The student will first be made familiar with laboratory processes by means of a course of experiments in general chemistry, involving the isolation of certain elements, a study of their physical and chemical properties, and of their principal compounds. Simple laws and phenomena will be explained to the student in the course of this work. In this way, experience in manipulation and a true understanding of the subject will be obtained.

This preliminary course leads to a systematic course in qualitative analysis and during the first year the reactions of the basic ions are studied. The student is taught the separation and identification of these, and finally is required to analyze systematically solutions containing two or more basic ions.

Textbook: Scott, *Elements of Qualitative Chemical Analysis*; Scott, *Qualitative Analysis*.

Chemistry 51-52—General physics (for University sophomores and second year College students). Lectures and recitations. 1 hour, 2 points. Professors H. H. SCHAEFER and A. TAUB.

This course is a continuation of *Chemistry 1-2* (general physics) and embraces the subjects of magnetism, electricity, and light. Special consideration is given to ionization, electrolysis, the electron hypothesis, vacuum tubes, the spectroscope, spectrum analysis, double refraction, and the polariscope.

The lectures will be accompanied and made more interesting by many exhibitions and experiments.

Textbook: Stewart, *College Physics*.

Chemistry 54—Practical physics (for University sophomores). Laboratory course 4 hours for $\frac{1}{2}$ year, 2 points. Professor A. TAUB and instructors.

The course consists of sixteen half-day periods of four hours each, given during the second half of the year.

This work consists of experiments in fundamental physical measurements followed by special work in mechanics, heat, light, sound, and electricity. The laboratory is equipped not only with apparatus for routine exercises, but has the appliances necessary for work in colorimetry, spectroscopy, spectrophotometry, refraction, calorimetry, and electrochemistry.

Chemistry 55-56—Inorganic chemistry (for University sophomores, and second year College students). Lectures and recitations 3 hours, 6 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, a continuation of *Chemistry 3-4*, will be devoted to a consideration of the metallic elements and their compounds. It will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry, such as the modern theories concerning valence, chemical equilibrium, oxidation, reduction and atomic structure, will be discussed. In descriptive chemistry, the course will consider all of the more important metallic elements and their salts. These will be discussed from the standpoint of modern industrial chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition.

Chemistry 57-58—Analytical chemistry (for University sophomores). Laboratory course 3 hours, 3 points. Professor H. C. KASSNER and instructors.

The course in qualitative analysis begun in the first year is continued through the first half of the second year. The sequence of work is as follows:—(1) the study of the acidic-ions according to an analytical scheme of separation; (2) a systematic method of preliminary testing of unknown compounds; (3) the preparation for analysis of water-insoluble substances; and (4) the complete qualitative analyses of unknown solutions or powders containing two or more compounds.

The second half of the year's work is devoted to a course in volumetric analysis. This begins with the study of general principles and theoretical considerations, the theory of indicators, pH values and the use of the analytical balance. It continues with the preparation of certain volumetric solutions and their uses in quantitative analysis by (1) neutralization, (2) precipitation, (3) oxidation and reduction, and (4) iodometry.

Textbooks: Scott, *Elements of Qualitative Chemical Analysis*; Scott, *Qualitative Analysis*; U. S. Pharmacopeia; Jenkins and DuMez, *Quantitative Pharmaceutical Chemistry*.

Chemistry 59-60—Analytical chemistry (second year College students). Laboratory course 3 hours, 3 points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.

The first half of the second year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

The second half of the school year is devoted to the theory and practice of volumetric analysis. The proper preparation of volumetric solutions is given consideration and all types of U. S. P. volumetric assays are conducted. The theories of indicators are presented and considerable time is devoted to the calculations involving a knowledge of volumetric analysis.

Textbooks: Schaefer and Bliss, *Qualitative Chemical Analysis*; U. S. Pharmacopœia.

Chemistry 101-102—Theories of chemistry (for University juniors). Lectures and recitations 1 hour, 2 points. Professor H. H. SCHAEFER.

The object of this course is to bring together, to correlate and to elaborate somewhat the various theories presented to the student in the regular chemistry and physics lectures. Consideration is given to the kinetic theory, the gas laws, the laws governing change of state, the quantitative laws of chemical combination, the atomic hypothesis, the laws of valence, the periodic system, radioactivity, atomic disintegration, atomic structure, solubility, ionization, indicators, equilibrium, electrochemistry and colloids.

Special importance is placed upon the practical application of modern theories of physical chemistry to analytical processes and methods.

Textbook: Chapin, *College Chemistry*.

Chemistry 103-104—Organic chemistry (for University juniors and third year College students). Lectures and recitations 3 hours, 6 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, a continuation of *Chemistry 3-4* and *55-56*, will be devoted to a comprehensive study of the carbon compounds, special care being taken to keep the course abreast the new applications of organic chemistry in pharmacy and medicine. The preparation of the more common organic chemicals is given careful consideration and advances under modern methods of research are presented to the class as they are reported.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Textbook: Sadler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; U. S. Pharmacopœia.

Chemistry 106—Analytical chemistry and urine analysis (for University juniors). Laboratory, 16 hours for 19 weeks, beginning December 14, 1931, 10 points. Professor H. C. KASSNER and instructors.

During the first part of the course, the student is supplied with pure and adulterated samples of official organic chemicals and is required to test them for identity and purity to determine whether they conform to the requirements of the Pharmacopœia, each sample studied representing a typical class of organic compound. This work also involves the determination of congealing, boiling and melting points, fractionations, alcoholometric estimations and other determinations of like character.

The second section of the course is devoted to volumetric analysis, the solutions used being prepared and standardized by the student. The substances assayed include antiseptics, disinfectants, ointments, volatile oils, etc.

The third part of the year's work deals with the assaying of vegetable drugs, including the determination of alkaloids in crude drugs and their pharmaceutical products, crude fiber, soluble extractive, etc.

The above course is concluded with certain miscellaneous assays. The final period is devoted to the analysis of urine.

Textbooks: U. S. Pharmacopœia; Weston, *Carbon Compounds*; Coleman and Arnall, *Organic Compounds*; Jenkins and DuMez, *Quantitative Pharmaceutical Chemistry*.

Chemistry 107-108—Newer remedies (third year College students). Lecture and recitations 2 hours, 4 points. Professor H. H. SCHAEFER and instructors.

The aim of this course is to make the students familiar with the many preparations generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given.

Textbook: *New and Non-official Remedies*.

Chemistry 109—Analytical chemistry (third year College students). Laboratory 6 hours for $\frac{1}{2}$ year, 3 points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.

This course will be given in six-hour periods to one section during the first half year and to the other section during the second half. This will enable the student to perform operations which require more time than is available in the usual three-hour period. The course will be devoted entirely to pharmaceutical testing and assaying. Some of the more important operations to be carried out are:—The preparation and standardization of volumetric solutions, testing the purity and strength of official chemicals and galenicals, selected gravimetric determinations, iodine values, saponification values, examination of oils, identification of alkaloids. The assay of crude drugs will be given special attention by dividing the section into still smaller groups for this work thus insuring better and more careful supervision. Practice will of course be given in the use of the analytical balance.

Textbooks: *United States Pharmacopœia* and *National Formulary*.

Chemistry 110—Same as Chemistry 109, but given during the second half of year.

Chemistry 151-152—Inorganic quantitative analysis (for University seniors). Lectures 1 hour a week for 32 weeks, laboratory, 29 hours a week for 8 weeks, beginning September 21, 1931, 10 points. Professor H. C. KASSNER and instructors.

The aim of this course is to train the student to carry out with precision many of the more difficult analyses of chemical and pharmaceutical products.

The laboratory work of the course consists, in the main, of a series of selected gravimetric determinations covering a wide field of substances, chosen to illustrate typical methods of procedure. This work is supplemented by operations involving the use of the viscosimeter, bomb calorimeter, etc.

In the lecture course, methods of quantitative analysis, gravimetric, volumetric, colorimetric, etc., are discussed at length and compared.

Reference books: Scott, *Standard Methods of Chemical Analysis*; Hillebrand and Lundell, *Applied Inorganic Analysis*.

Chemistry 153-154—Food analysis and toxicology (for University seniors). Lectures 1 hour a week for 32 weeks, laboratory 29 hours a week for 8 weeks, beginning November 16, 1931, 10 points. Professors H. V. ARNY, H. C. KASSNER, and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course describing the various chemical and physical methods of food examination.

Textbooks: Leach, *Food Analysis*; Mason, *Examination of Water*.

Reference Books: Allen, *Commercial Analysis*; Autenrieth-Warren, *Detection of Poisons*.

Chemistry 155-156—Biological chemistry (for University seniors). Lectures 1 hour, 2 points. Professor M. KARSHAN.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

MATERIA MEDICA

Materia Medica 1-2—Botany (for University freshmen and first year College students). Lectures and recitations 2 hours, 4 points. Professor F. HART and instructors.

The object of this course is to prepare the student for an understanding of that part of materia medica which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction includes a brief consideration of plant life in general and the evolution of the higher plants from those of a simpler nature. The major portion of the time available is devoted to the morphology of the higher plants from which nearly all of our vegetable drugs are derived, the terms used in official descriptions, systems of classification, and botanical nomenclature.

Textbook: Rusby, *Manual of Botany*.

Materia Medica 3-4—Botany laboratory (first year College students). Lectures and recitations 1 hour, laboratory 4 hours, 6 points. Professors C. W. BALLARD, F. HART, H. TAUB, and instructors.

This course affords opportunity for personal observations supplemental to the theoretical training of the botany lectures (*MM 1-2*) and is a preparation for the study of pharmacognosy. The course is divided into three parts as follows:

General: A brief résumé of the developmental sequence of plant life from the single-celled forms to the seed-bearing plants.

Morphology: A detailed study of the various organs of the seed-bearing plants and involving dissection of these parts both with and without the aid of the simple microscope.

Histology: As ability to use a microscope properly is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts and methods of using the instrument.

The course under the direction of Professor BALLARD includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis, and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant.

Textbooks: Ballard, *Elements of Vegetable Histology*, 2d Edit.; Ballard and Hart, *Laboratory Manual*.

Materia Medica 5-6—Posology (first year College students). Lectures and recitations 1 hour, 2 points. Professor H. TAUB.

The average dosage of U. S. P. and N. F. drugs is considered with the object of teaching the student to recognize an overdose in actual prescription practice. The course covers the recognition of safe and dangerous prescriptions, approximate equivalents and conversion methods from one system into the other, and dosage of non-official but commonly prescribed synthetic remedies.

Materia Medica 7-8—Posology (for University freshmen). Lectures and recitations $\frac{1}{2}$ hour, 1 point. Professor H. TAUB.

The relationship in dosage of chemically similar substances and botanically related drugs is considered during the first portion of the course; the material of the College Course is given in brief in the latter half.

Materia Medica 9-10—Plant morphology and histology (for University freshmen). Lectures 1 hour, laboratory $4\frac{1}{2}$ hours, $6\frac{1}{2}$ points. Professors C. W. BALLARD, F. HART, H. TAUB, and instructors.

This course corresponds substantially to certain courses in Columbia College (*Botany 1-2, 3-4, 5105*) and in addition includes the more specialized treatment of morphology and histology requisite for the study of pharmacognosy.

Morphology: The laboratory course in morphology is designed to supplement the lectures in pharmaceutical botany (*Materia Medica 1-2*). It affords practical training in simple plant dissection, both with and without the dissecting microscope, thereby illustrating the topics considered in the above lecture course and fitting students for the advanced studies of pharmacognosy and taxonomy.

Histology: This section of the course includes a systematic review of one or more representative orders of the Thallophyta, Bryophyta, Pteridophyta, and Spermatophyta. The chief object is the tracing of the origin and development of the various tissues and organs occurring in the higher plants. This is followed by a detailed study of the various cellular elements, considered both as individual tissues and as integral parts of plant organs.

Textbooks: Ballard, *Elements of Vegetable Histology*, 2nd Edit.; Ballard and Hart, *Laboratory Manual*; Rusby, *Manual of Botany*; Curtis, *Nature and Development of Plants*.

Materia Medica 53-54—Pharmacognosy, macroscopic and microscopic (second year College students). Laboratory 3 hours, 3 points. Professor H. TAUB, and instructors.

Macroscopic: This part of the course comprises laboratory instruction in the classification, identification and description of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial sources; official description, definition, and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. A knowledge of botany (*Materia Medica 1-2, 3-4* or equivalent) is prerequisite to a proper understanding of the work in this course.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*.

Microscopic: The preliminary work of this part of the course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (course *Materia Medica 3-4*) is coordinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements *in situ* and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress

in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

Textbooks: Ballard, *Elements of Vegetable Histology*, 2d Edit.; Ballard and Hart, *Laboratory Manual*.

Materia Medica 55-56—Macroscopic pharmacognosy (for University sophomores). Laboratory 2 hours, 2 points. Professor H. TAUB.

This course includes all of the instruction offered in macroscopic pharmacognosy, *Materia Medica 53-54*, but in addition many non-official articles of commercial and technical importance are studied. Experience in manufacturing fields has shown that these non-official drugs and drug materials are in frequent use and familiarity with them is especially important in view of their non-inclusion in the Pharmacopœia and National Formulary.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*; Youngken, *Pharmacognosy*.

Materia Medica 57-58—Human physiology and hygiene (for University sophomores and second year College students). Lectures and recitations 2 hours each, 4 points. Professor H. H. RUSBY and instructors.

In addition to the skill in pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in human physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies, in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of materia medica as is properly required of the practicing pharmacist.

Textbook: Bachman and Bliss, *Essentials of Physiology*.

Materia Medica 59-60—Microbiology (second year College students). Lectures and recitations 1 hour, laboratory and demonstrations 1 hour, 3 points. Professor F. HART and instructors.

This subject constitutes an introduction to the nature, behavior and effects of microorganisms, especially of bacteria. Without entering upon the subject of practical laboratory bacteriology, as is done in the University Course, it discusses the life history of bacteria, and the part that they play in fermentation and decomposition, as well as in disease, and indicates the general nature of the means employed in combating them, and treats of biological products. The subject of sterilization, as employed in the pharmacy, and the principles of antiseptics and immunization are studied.

Materia Medica 61-62—Bacteriology (for University sophomores). Lectures 1 hour, laboratory 2 hours, 4 points. Professor F. HART and instructors.

A separate and fully equipped bacteriological laboratory is maintained, and practical work in this important field is taken up. The general principles of the science are taught, and the students cultivate, stain, and study the more important microorganisms. Laboratory methods in the bacterial examination of water, air, milk, ice, sputum and excreta are given, and methods of disinfection and sterilization are practically demonstrated. The course includes the microscopy of the blood with special emphasis on the structural differences of that tissue in health and disease.

Textbook: Park and Williams, *Pathogenic Microorganisms*.

Materia Medica 101-102—Materia medica (for University juniors and third year College students). Lectures and recitations, 3 hours, 6 points. Professor H. H. RUSBY and instructors.

This course includes instruction in both the inorganic and organic divisions of drugs. In connection with the extension of our course to three years, the instruction in materia medica has been completely reorganized and a new textbook has been written for the students. In the new arrangement, the drugs have been classified in accordance with their medicinal uses. Discussion of the individual drugs covers the official titles, abbreviations, definitions and standards, origin, preparation, preservation, variations in quality and causes of such variation, constituents, properties and uses, preparations and doses. All instruction in description, structure and identification, and the detection of adulterants and impurities is referred to the extensive course in pharmacognosy.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

Materia Medica 103-104—Toxicology (for University juniors and third year College students). Lectures and recitations, 1 hour, 2 points. Professor H. H. RUSBY and instructors.

The classification of poisons is based upon the physiological action of medicines, taught in the preceding year, and is synoptically presented at the beginning of the course in materia medica. The toxicology of the individual drugs is then taken up in detail in connection with their physiological action and medicinal uses. Experience has shown that by this method the modes of occurrence of poisoning accidents, the poisonous doses, the action of poisons and their rational treatment, are all made more intelligible to the student, and are better impressed upon his memory, than by treating the subject as entirely disconnected from that of materia medica.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

Materia Medica 109-110—Pharmaceutical sundries (third year College students). Lectures 1 hour, 2 points. Professor C. W. BALLARD.

This course includes a systematic presentation of the facts of interest to the retail pharmacist in the use and sale of the ordinary sick-room sundries. The course is thus linked with materia medica on the one hand and commercial pharmacy on the other. Among the topics considered are: bandaging and dressing materials, rubber sundries, glass and metal appliances, ligatures and first-aid apparatus.

Materia Medica 111-112—Microscopic pharmacognosy (for University juniors). Lectures $\frac{1}{2}$ hour, laboratory $1\frac{1}{2}$ hours, $2\frac{1}{2}$ points. Professor H. TAUB and instructors.

This course consists in a detailed study of the histological structure of the several plant organs, followed by a consideration of the characters and adulterants of the commonly used powdered drugs. It includes the preparation of specimens both in sectioned and powdered forms and the application of stains and microchemical tests to the materials so prepared.

Textbook: Ballard, *Laboratory Manual*.

Materia Medica 152—Applied pharmacognosy (for University seniors). 2 hours lecture, 21 hours laboratory for eight weeks beginning March 21, 1932, $6\frac{1}{2}$ points. Professors C. W. BALLARD, H. TAUB, and instructor.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials, using these sections for the demonstration of staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work, it is expected that the student will avail himself of the library facilities of the College and freely use the economic drug and food collections of the laboratory for reference and comparison purposes. The aim is to duplicate actual commercial laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, so far as possible, be commercial products which have been analyzed by microscopical methods.

References: Youngken, *Pharmacognosy*.

Materia Medica 154—Botanical taxonomy (for University seniors). 6 hours laboratory for eight weeks beginning March 21, 1932. 1½ points. Professor H. H. RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Textbook: Rusby, *Manual of Botany*.

References: Bentham and Hooker, *Genera Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

Materia Medica 155-156—Human physiology (for University seniors). Textbook and conferences 1 hour, 2 points. Dr. A. HOPPING.

This course consists of a series of discussions, based on assigned reading, occupying 1 hour weekly throughout the term.

Textbook: *Physiology*.

PHARMACY

Pharmacy 1-2—Theory of pharmacy including metrology and operative pharmacy (for University freshmen and first year College students). Lectures 2 hours, recitation 1 hour. 6 points. Professors C. P. WIMMER, L. N. BROWN, H. M. CARTER, and instructors.

The purpose of this course is to introduce the student to the fundamentals of pharmaceutical science. It comprises the study of elementary pharmaceutical operations, such as heating, evaporation, sublimation, distillation, solution, crystallization, precipitation, filtration, etc. It also includes the study of the general principles involved in the manufacture of the various classes of pharmaceutical compounds, such as the fluid extracts, tinctures, syrups, elixirs, etc.

A series of lectures is devoted to a brief study of the historical development of pharmacy, beginning with the Egyptian age and tracing it through the Greek, Roman, Arabic, and European periods up to the present time. Special stress is laid upon the development of pharmacy in the United States, upon its position in the economic life of the nation; its organization; the accomplishments, aims and purposes of the various pharmaceutical associations; the pharmaceutical code of ethics.

The lectures on metrology comprise the study of the various systems of weights and measures and of their relationships to each other; specific gravity and its uses in pharmacy; thermometric scales, etc.

Textbooks: *U. S. Pharmacopœia X*; Arny, *Principles of Pharmacy*; Sturmer, *Pharmaceutical Arithmetic*.

Pharmacy 3-4—Manufacturing pharmacy laboratory (for University freshmen and first year College students). Laboratory course 3 hours, recitation 1 hour. 5 points. Professors L. N. BROWN, H. M. CARTER, J. S. DORFMAN, and instructors.

The work of this course affords students the opportunity to apply practically their theoretical knowledge of the processes of calcination, distillation, sublimation, crystallization, purification, and granulation of salts, and the determinations of specific gravity, solubility of salts and alcoholic content of liquids. It also includes the manufacture of tinctures, fluid extracts, and extracts by percolation, and the preparation of various classes of galenicals and the more simple types of chemical preparations.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes* and *U. S. Pharmacopœia*.

Pharmacy 5-6—Dispensing pharmacy laboratory (for University freshmen). Laboratory course 2 hours. 3 points. Professor H. M. CARTER and instructors.

The work of this course is similar in scope, covering laboratory work and instruction, as outlined under *Pharmacy 55-56*.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; *U. S. Pharmacopæia* and *National Formulary*.

Pharmacy 51-52—Theoretical pharmacy including pharmaceutical arithmetic (for University sophomores and second year College students). Lecture 1 hour, recitation $\frac{1}{2}$ hour. 3 points. Professors C. P. WIMMER, L. N. BROWN, and instructors.

This course is devoted to the study of pharmaceutical arithmetic in its various aspects. It comprises the study of proportions, percentage, alligation, reducing and enlarging formulæ, etc., as used in both manufacturing and dispensing pharmacy.

During the second semester the study of the official preparations is begun and carried along through the fluid extracts, extracts, tinctures and other preparations made directly from vegetable drugs.

Textbooks: Sturmer, *Pharmaceutical Arithmetic*; *U. S. Pharmacopæia*; *National Formulary*.

Pharmacy 53-54—Pharmaceutical Latin (for University sophomores and second year College students). Lecture 1 hour, recitation $\frac{1}{2}$ hour. 3 points. Professor J. S. DORFMAN and instructors.

This course is devoted to the study of pharmaceutical Latin. The work is divided as follows: (A) Study of the principles of etymology and syntax; (B) systematic study of Latin vocabulary including official Latin titles, botanical nomenclature and abbreviations with special reference to the formation of words and their relative importance to pharmacy; and (C) practice in prescription writing, necessary to an intelligent understanding of Latin used in prescriptions.

Textbooks: Sturmer, *Pharmaceutical Latin*; *U. S. Pharmacopæia*; *National Formulary*.

Pharmacy 55-56—Dispensing pharmacy laboratory (for second year College students). Laboratory course 3 hours, recitation 1 hour. 5 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The first semester embraces general methods of compounding pills, troches, bacilli, emulsions, ointments and suppositories. It includes theoretical instruction and training in practical work emphasizing the habits of accuracy and neatness.

The second semester deals more especially with prescriptions and includes the compounding and dispensing of the various types requiring technical knowledge and skill. Consideration is given to tablet triturates, mucilages, mixtures, and filling of capsules, cachets, collapsible tubes, etc. General instruction is given in the reading and interpretation of prescriptions, the recognition of the various constituents of their ingredients together with the proper methods and manner of dispensing them.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; *U. S. Pharmacopæia* and *National Formulary*.

Pharmacy 57-58—Dispensing pharmacy laboratory (for University sophomores). Laboratory course 3 hours, recitation 1 hour. 5 points. Professor H. M. CARTER and instructors.

This course is a continuation of the work in the dispensing laboratory of the first year involving thorough laboratory work and instruction in the preparation and dispensing of mixtures, adjusted solutions, pastilles, lamels, compressed tablets, powders, crayons, medicated gauzes, cottons, etc. During the second semester the laboratory practice deals particularly with the various phases of prescription dispensing, such as prescription writing and checking, labeling, wrapping, pricing, and delivery, etc.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; U. S. Pharmacopœia and National Formulary.

Pharmacy 59—Manufacturing pharmacy laboratory (for University sophomores). Laboratory course 4 hours, 16 weeks beginning September 23, 1931. 3 points. Professor H. M. CARTER and instructors.

This course deals with the manufacture of the more important pharmaceutical preparations of inorganic and organic nature thus giving laboratory practice and technique preliminary to the work of the manufacturing laboratory in the third year.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes*; U. S. Pharmacopœia.

Pharmacy 61-62—Commercial pharmacy (for University sophomores and second year College students). Lecture 1 hour, recitations 2 hours. 6 points. Professor F. D. LASCOFF.

This course in commercial pharmacy is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug store, including the choice of location, the elements of business administration and store management, insurance, problems of retail merchandising, including the value of discounts, banking, principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will partially be devoted to the principles underlying the making and interpretation of these records.

Pharmacy 101-102—Theoretical pharmacy (for third year College students). Lectures 2 hours, recitation 1 hour. 6 points. Professor C. P. WIMMER and instructors.

During the first semester, the study of the U. S. Pharmacopœia and National Formulary galenical preparations is continued and completed. Their methods of preparation are individually studied and the reasons for each step taken in their preparation are given. The second semester is devoted to the study of non-official important galenical, cosmetic and toilet preparations, as well as to the study of the pharmacy of individual substances used in prescriptions.

Textbooks: U. S. Pharmacopœia; National Formulary V; American Pharmaceutical Association Recipe Book.

Pharmacy 103-104—Theoretical dispensing pharmacy (for third year College students). Lectures 1 hour, recitation 1 hour. 4 points. Professor C. P. WIMMER and instructors.

This course is devoted in the main to the study of the problems encountered by the pharmacist in his prescription work. Prescriptions of all kinds, especially such as present some difficulties, are studied with the aid of lantern slides. The numerous incompatibilities of present-day prescription work are discussed, as well as ways of avoiding or overcoming them. The subject of homeopathy receives the attention it deserves.

Textbooks: Scoville, *The Art of Compounding*; Ruddiman, *Incompatibilities*.

Pharmacy 105—Manufacturing pharmacy laboratory (for third year College students). Laboratory course, 16 weeks (two sections alternating). 6 hours. 3 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The work of this course is a continuation of the first year. Many inorganic and organic pharmaceutical preparations and salts are manufactured. In addition, galenicals, toilet preparations,

and hospital formulæ are compounded. Especial attention is given systematic training in the identification of many chemicals and galenicals official in the United States Pharmacopœia and National Formulary.

Textbooks: *U. S. Pharmacopœia; National Formulary; National Dispensatory; The Pharmaceutical Recipe Book; Diekman and Wimmer, Pharmacy Notes.*

Pharmacy 106—Same as *Pharmacy 105* but given during second half of the year.

Pharmacy 107-108—Dispensing pharmacy laboratory (for third year College students). Laboratory course, 4 hours. 4 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The work in the dispensing pharmacy laboratory deals particularly with the various phases of prescription dispensing, such as checking, labeling, pricing, and delivery, etc. The all-important subject of chemical, pharmaceutical, and therapeutical incompatibilities is thoroughly studied. The continual introduction of new remedies renders the subject of prescription incompatibilities a never-ending study, and it is the aim of this course to qualify its graduates to keep pace with discovery.

Textbooks: Ruddiman, *Incompatibles in Prescriptions; Diekman and Wimmer, Pharmacy Notes.*

Pharmacy 109-110—Pharmaceutical jurisprudence and business pharmacy (for University juniors and third year College students). Lectures 2 hours, recitation 1 hour. 6 points. Professor F. D. LASCOFF, Dr. I. NEUSTAEDTER, and visiting lecturers and instructors.

This course is designed to familiarize the student with the fundamentals underlying all law and also with the general provisions of Federal and state laws governing the practice of pharmacy. The various ordinances and regulations having local application will also be studied. Special attention is given to prohibition and anti-narcotic laws and regulations.

Lectures by practical business men will be a feature of the course. This series of lectures will give the student the principles of merchandising from a business man's viewpoint rather than from that of the pedagogue. These lectures, as well as those of the regular course, are aimed to give the student a better understanding of contemporary business problems.

Pharmacy 111—Practical pharmacy—manufacturing pharmacy laboratory (for University juniors). Laboratory 13 hours per week for 12 weeks beginning September 21, 1931. 5 points. Professor H. M. CARTER and instructors.

This course includes the manufacture of a number of the more difficult Pharmacopœial and National Formulary preparations, as well as of inorganic and organic medicinal remedies. The work is intended to qualify students for positions in pharmaceutical manufacturing establishments.

Textbook: Wimmer, *Manufacturing Pharmacy Notes.*

Pharmacy 113—Practical dispensing pharmacy (for University juniors). Laboratory 3 hours per week for 12 weeks beginning September 21, 1931. 2 points. Professor H. M. CARTER and instructors.

This course embraces a thorough study of the various types of incompatibilities. A large number of prescriptions are compounded which illustrate how some incompatibilities may be avoided or overcome.

Textbooks: Diekman and Wimmer, *Incompatibilities; Ruddiman, Incompatibilities in Prescriptions.*

Pharmacy 115-116—Theoretical pharmacy (for University juniors). Lectures 2 hours, recitation 1 hour. 6 points. Professor C. P. WIMMER.

This is the same lecture course as *Pharmacy 101-102*, but no formal recitations are provided.

Pharmacy 151-152—Advanced pharmacy (for University seniors). Lecture 1 hour. 2 points. Professor C. P. WIMMER.

This course is devoted to a detailed study of pharmaceutical, chemical, and biological assay methods of vegetable and animal drugs, as well as of methods for their identification. It includes the newer methods employed, such as the standardization of tannin-containing drugs by the agglutination test, of saponin-containing drugs by the determination of their haemolytic indices, etc.

A portion of the lecture course is devoted to a study of essential oils, while especial emphasis is laid upon official oils. Those of importance in the essential oil industry are included.

In a series of seminars, students are required to prepare and present before the professors and instructors in the department, papers on current topics of interest pertaining to pharmaceutical and allied sciences.

Textbooks: Fuller, *Analysis of Drugs and Medicines*; U. S. Pharmacopœia; National Formulary V; Gildemeister and Hoffman, *The Volatile Oils*.

Pharmacy 153-154—Pharmaceutical assaying (for University seniors). 8 weeks beginning January 25, 1932. Laboratory, 7 hours. 7 points. Professors C. P. WIMMER, H. M. CARTER, and instructors.

This course is intended to prepare the student for work as a drug analyst. The entire class carries out a proximate analysis of a vegetable drug. Individual problems in assay work of the most varied and difficult kind are assigned and the student is, to a considerable extent, left to his own resources. The work embraces assays of galenicals, flavoring extracts, toilet preparations, cosmetics, medicinal gauzes, etc.

Textbooks: Fuller, *Analysis of Drugs and Medicines*; Nelson, *Introduction to the Analysis of Drugs and Medicines*; *Current Literature*.

CULTURAL COURSES

English 1-2—English (for University freshmen). Lectures and recitations, 3 hours. 6 points. Mr. G. D. McJIMSEY.

This is the Columbia College course *A1-A2*, in English composition and literature, required of all freshmen at that college.

History 1-2—American government (for University freshmen). Lectures and recitations, 3 hours. 6 points. Mr. G. D. McJIMSEY.

This is the Columbia College course *Government 1-2*, American government. It constitutes a general survey of the most persistent problems of American government—national, state, and local—considering problems of political organization in the first semester, and problems of administrative organization and personnel, and those related to the functions of finance, justice, the relation of government to economic life, and foreign relations in the second semester.

German 51-52—German (for University sophomores). Lectures and recitations, 5 hours. 10 points. Mr. A. H. INGENHUETT.

This is an introductory course in German.

Mathematics 101—Solid geometry (for University juniors). 3 hours. 3 points Winter Session. Mr. G. D. McJIMSEY.

This course embraces the same work as is required in the Columbia College course *Mathematics A57*.

Mathematics 102—Trigonometry (for University juniors). 3 hours. 3 points Spring Session. Mr. G. D. McJIMSEY.

This course embraces the same work as is required in the Columbia College course *Mathematics A1*.

Bibliography 151-152—Pharmaceutical bibliography (for University seniors). Lectures and conferences 1 hour, 2 points. Professor C. W. BALLARD.

This course will consist of lectures on the source books of chemistry, pharmacy, botany, and cognate sciences and on the periodical literature on the same subjects. At the conferences, special themes will be assigned to each student for research during spare hours.

THE GRADUATE COURSE

A graduate course of two full years' study in residence is open to graduates with the baccalaureate degree, conferred by this college or other schools of pharmacy maintaining equivalent courses of study. For the present, we are able to accommodate only two students majoring in each of the Departments of Chemistry, Materia Medica, and Pharmacy. Thirty hours' study weekly is required in the department in which the student is majoring, and three hours weekly in each of the other two departments. In the latter departments, certain work is obligatory, although an option is allowed the student, between two or more schedules, as follows:

CHEMISTRY

Fifth Year

Option A—Lecture courses consisting of **Chemistry 201-202—Structural organic chemistry**. 2 hours. 4 points. Professor H. V. ARNY.

Chemistry 203-204—Synthesis of newer organic medicinal chemicals. 1 hour. 2 points. Professor H. H. SCHAEFER.

Option B—Laboratory work. **Chemistry 205—Experimental organic chemistry**. 2 periods weekly at 6 hours each during 8 weeks. 3 points. Professors H. V. ARNY and A. TAUB.

This course includes combustions and other organic analyses, molecular weight determinations and other such work as time permits.

Sixth Year

Option A—The same lecture courses offered to students of the fifth year, provided such courses have not already been offered as fifth year subjects.

Option B—**Chemistry 207—Advanced organic analysis**. 2 periods of 6 hours weekly during 8 weeks. 3 points. Professor H. C. KASSNER.

This course includes modern methods of organic radicles; the quantitative determination of elements and radicles not performed in previous years; and lastly, time permitting, special analytical methods such as electrometric titrations and the polarimetry of complex mixtures.

MATERIA MEDICA

Fifth Year

Option A—**Materia Medica 201—Analysis and determination of cryptogamous and phanerogamous plants**. Laboratory course, two periods weekly of 6 hours each during 8 weeks. 3 points. Professors H. H. RUSBY and F. HART.

Option B—Materia Medica 203—Advanced bacteriology. Laboratory and conferences, 2 periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professor F. HART.

The determination of types through special cultural and staining methods.

Option C—Materia Medica 205—Food microscopy. Laboratory and conferences, 2 periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professor C. W. BALLARD.

A systematic study of the various classes of foodstuffs in which adulteration can be determined by microscopical methods.

Sixth Year

Option A—(To be offered only if Option A of the fifth year has been carried. If not, that work will constitute Option A of the sixth year.) Materia Medica 207—The literature and methods of research in vegetable taxonomy. Conference and laboratory, two periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professors H. H. RUSBY and F. HART.

Option B—Materia Medica 209—Bacteriology. Conference and laboratory, 2 periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professor F. HART.

The preparation of antitoxic products in media and their cultivation through animal experimentation.

Option C—Materia Medica 211—Chemical microscopy. Conference and laboratory, 2 periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professors C. W. BALLARD and H. TAUB.

A study of the microchemical procedures involved in the use of the microscope as an aid in chemical analysis.

PHARMACY

Fifth Year

Option A—Pharmacy 201—Assay and analysis of official and non-official galenicals and other medicinally compounded preparations. Lectures and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professor C. P. WIMMER.

Option B—Pharmacy 203—Manufacture, composition, and analysis of toilet preparations and cosmetics. Lectures and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professor C. P. WIMMER.

Sixth Year

Option A—Pharmacy 205—Examination and analysis of incompatible mixtures with special reference to prescriptions. Laboratory work only. 2 periods weekly of 6 hours each during 8 weeks. $3\frac{1}{2}$ points. Professor C. P. WIMMER.

Option B—Pharmacy 207—Examination and analysis of essential oils, flavoring extracts, and perfume materials. Lecture and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. P. WIMMER.

SUBMISSION OF THESIS

At least fifteen days before the first day on which University examinations are scheduled to be held, the candidate shall submit three finished copies of his or her thesis, in typewritten form, to the professor in whose department the candidate is majoring.

The awarding of the degree shall be dependent upon the approval of the thesis, and the results of an oral Faculty examination of the candidate.

SUMMER LABORATORY COURSES

These courses are designed to assist students who have failed at the spring examinations to prepare for those of the fall, and to provide instruction for special students in the use of the microscope, in the examination of drugs, and in pharmaceutical processes.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

SUMMER LABORATORY COURSES 1931

First, Second, and Third Year College Classes

June 8 to June 27—Department of Chemistry.

June 29 to July 18—Department of Materia Medica.

July 20 to August 8—Department of Pharmacy.

SUMMER LABORATORY COURSES 1932

First, Second, and Third Year College Classes

June 6 to June 25—Department of Chemistry.

June 27 to July 16—Department of Materia Medica.

July 18 to August 6—Department of Pharmacy.

UNIVERSITY CLASSES

University students failing in laboratory courses will be advised by the Registrar regarding the summer laboratory schedules.

EVENING COURSES

These courses of instruction, although they cannot be substituted for any of our regular work leading to degrees, have proven of great benefit to those who cannot attend during the day, and to those who desire to pursue special courses

of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes.

Candidates may be admitted at any time during the course, at the discretion of the director of the course, but only those who have attended at least 80 per cent of all exercises and who pursue in a satisfactory manner the courses for which they are registered will receive certificates.

The courses are offered on Monday, Tuesday, and Friday of each week during the periods from Monday, October 5, 1931, to January 15, 1932, and from January 18, 1932, to Friday, May 7, 1932.

The Registrar's office will be open daily for registration from 10 a. m. to 4 p. m. and on Monday, Tuesday, and Friday evenings from 7 to 8 o'clock, during the first two weeks of each semester.

Fees are payable in advance and are not returnable. A registration fee of \$6 is required of each student in addition to the fees stated below.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

The following courses are offered:

DEPARTMENT OF CHEMISTRY

Evening Chemistry 1-2—Pharmaceutical qualitative analysis. 1 hour classroom and 2 hours laboratory each week. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:30-10:30 p. m.

Lecture: F., 7:30-8:20 p. m.

Laboratory: F., 8:30-10:30 p. m.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Evening Chemistry 3-4—Pharmaceutical qualitative analysis. 1 hour classroom and 2 hours laboratory work each week. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7-10 p. m.

Laboratory: F., 7-9 p. m.

Lecture: F., 9:10-10 p. m.

This course is a continuation of *Evening Chemistry 1-2* with particular reference to the U. S. P. tests for acid-ions. (Conditional on the enrollment of ten students.)

Evening Chemistry 5-6—Pharmaceutical volumetric analysis. 1 hour classroom and 2 hours laboratory work. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7-10:30 p. m.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Evening Chemistry 7—Examination of urine. First semester, 1 hour lecture and 2 hours laboratory work. Fee \$25; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:15-10:30 p. m.

Lecture: F., 7:20-8:20 p. m.

Laboratory: F., 8:30-10:30 p. m.

It should be noted that to qualify for "Director" of a laboratory, as defined by the Board of Health of the City of New York, a degree at least the equivalent of a B.S., is required.

In this course the qualitative and quantitative chemical tests of normal and pathological urine are studied; also the preparation and standardization of the necessary reagents. (Conditional upon the enrollment of twenty students.)

Evening Chemistry 8—Examination of urine. Second semester 1½ hours lecture and 2 hours laboratory work. Fee \$25; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:30-10 p. m.

Lecture: F., 7:30-8 p. m.

Laboratory: F., 8:20-10 p. m.

In this course, a continuation of *Evening Chemistry 7*, the gravimetric, polariscopic, colorimetric, and microscopic examination of urine is studied. (Conditional upon the enrollment of twenty students.)

Evening Chemistry 9-10—Newer remedies. 1 hour lecture each week throughout the year. Fee \$30. Professor H. H. SCHAEFER.

F., 8:30-9:30 p. m.

The aim of this course is to give the graduate pharmacist an opportunity to become familiar with the chemistry of many "recent" remedies generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given.

Conditional on enrollment of twenty students.

DEPARTMENT OF MATERIA MEDICA

Evening Materia Medica 1-2—Principles and practice of bacteriology. 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester; \$10 breakage deposit. Professor F. HART and assistants.

Tu., 7-10 p. m. Lectures: 7-8 p. m. Room 42, Pharmacy.

Laboratory: 8-10 p. m.

This course includes the bacterial examination of sputum, excreta, water, air, milk, and ice.

Special attention is given to the standard methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology, and staining properties leading to the identification of the more common pathogenic bacteria.

Conditional on the enrollment of ten students.

Evening Materia Medica 3-4—Blood analysis. 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester; \$10 breakage deposit. Professor H. TAUB and assistants.

M., 7-10 p. m. Lecture: 7-8 p. m.

Laboratory: 8-10 p. m.

First semester: Preparation and study of blood smears in health and disease; total and differential counts; special pathology.

Second semester: Blood chemistry, including non-protein and urea nitrogen determinations, sugar, creatinin, uric acid, CO_2 —combining power, chlorides, calcium, cholesterol, and other constituents; hemoglobin estimation, coagulation time; establishing and operating a laboratory.

Conditional on the enrollment of ten students.

Evening Materia Medica 6—Parasitology. 1 hour lecture and 2 hours laboratory work each week, second semester. Fee \$40; \$10 breakage deposit. Professor F. HART and assistants.

Tu., 7-10 p. m.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods.

Conditional on the enrollment of 10 students.

Evening Materia Medica 7-8—Microbiology. 1 hour of lecture and demonstration each week throughout the year. Fee \$30. Professor F. HART.

M., 7:30-8:30 p. m.

This course includes the methods of manufacture, standardization, administration and dosage of the commercial biological and bacteriological products and derivatives. Consideration is likewise given to the various methods of sterilization and disinfection as well as the principles of serology and immunology.

Conditional on enrollment of twenty students.

Evening Materia Medica 9-10—Pharmaceutical sundries. 1 hour lecture each week throughout the year. Fee \$30. Professor C. W. BALLARD.

M., 8:30-9:30 p. m.

While the retail pharmacist handles many items which are included under the general heading of sick-room supplies, he generally has little opportunity for systematic study of these articles and this is particularly true under present-day conditions. The object of this course of lectures is to acquaint him with the manufacture, differences and applications of bandaging and dressing materials, rubber sundries, glass and metal appliances, sutures and ligatures and the miscellaneous articles stocked in the average retail pharmacy and intended for physicians' or household use. The complicated and specialized types of surgical instruments and appliances will not be considered.

Conditional on enrollment of twenty students.

DEPARTMENT OF PHARMACY

Evening Pharmacy 1-2—Manufacturing pharmacy. 1½ hours lectures and 1½ hours laboratory work each week. Fee \$35 each semester. Professor L. N. BROWN and assistants.

Tu., 7:30-10:30 p. m.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail.

Conditional upon the enrollment of ten students.

Evening Pharmacy 3-4—Manufacture of cosmetics and toilet preparations. 1 hour lecture and 2 hours laboratory work each week. Fee \$35 each semester. Professor C. P. WIMMER and assistants.

Tu., 7:30-10:30 p. m. Main Lecture Hall.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face powders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured.

Conditional upon the enrollment of ten students.

A summary of the lecture topics will be furnished upon request.

Evening Pharmacy 5-6—Perfume materials and perfumery. 1 hour lecture and 2 hours laboratory work each week. Fee \$50 each semester. Professor C. P. WIMMER and assistants.

M., 7 p. m. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprises the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included.

A summary of the course will be mailed upon request.

Conditional on the enrollment of ten students.

Evening Pharmacy 7-8—Ampuls and medicated units. 1 hour lecture each week. Fee \$30 entire course. Professor H. M. CARTER.

F., 7:30-8:30 p. m.

This course provides for the graduate pharmacist a thorough training in the principles of ampul medication both from the theoretical and practical viewpoints. Briefly, it considers the history, the advantages of parenteral administration, the forms and sizes of ampuls of American and foreign makes, together with the actual demonstration of ampul manufacture including glass blowing, filling, sealing, sterilization, etc. The National Formulary ampuls and products of various manufacturers are exhibited and discussed in detail paying strict attention to methods of packaging, storing, and dispensing.

Conditional upon the enrollment of twenty students.

THE ALUMNI ASSOCIATION OF THE COLLEGE OF
PHARMACY OF THE CITY OF NEW YORK

OFFICERS AND COMMITTEES, 1931-1932

President

HARRY TAUB

Honorary President

ADOLPH HENNING

Vice-Presidents

HUGO H. SCHAEFER

GUSTAVE BARDFELD

LESLIE JAYNE

Secretary

ABRAHAM TAUB

Treasurer

GEORGE C. DIEKMAN

Registrar

CURT P. WIMMER

Executive Board

V. K. COMMONS, 1932.

ARTHUR J. BAUER, 1933.

MAY O'C. DAVIS, 1932.

VITO CALCAGNO, 1933.

F. J. POKORNY, 1932.

F. D. LASCOFF, 1934.

RUDOLF HAUCK, 1933.

J. H. HECKER, 1934.

L. N. BROWN, 1934.

Committee on Papers and Queries

C. P. WIMMER

ADOLPH HENNING

JOHN H. HECKER

Delegates to the American Pharmaceutical Association

GEORGE C. DIEKMAN

C. P. WIMMER

ADOLPH HENNING

Delegates to the New York State Pharmaceutical Association

CHARLES W. BALLARD

HUGO H. SCHAEFER

VITO CALCAGNO

Delegates to the New Jersey Pharmaceutical Association

HAROLD McADAMS

CHARLES W. HOLTON

HARRY E. BISCHOFF

Delegates to the Connecticut Pharmaceutical Association

CURT P. WIMMER

HAROLD LEVY

FRANK V. DAMTOFT

ENDOWMENTS

For one hundred consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler, and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and Trustees. At various times financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this Announcement, in addition to the College Course of three years, leading to the degree of Ph.G., there is now provided a University Course of three years, leading to the degree of Ph.Ch., with an additional year of optional work, leading to the degree of B.S. in Pharmacy.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the College.

Since the actual instruction work of the College calls for the expenditures of our entire income received from students' fees, it follows that we are compelled, like other schools, to seek other sources of income for meeting unusual expenses.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

LIBRARY MAINTENANCE

The library facilities required by men engaged in advanced studies are necessarily much more extensive than those now provided by the College. The research work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.

APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to \$10,000 would admirably meet this demand.

MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or materia medica museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum properly comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the city and Federal departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquiries could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an encyclopedic knowledge of the subject, and qualified to pursue original researches. Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

ADDITIONAL PROFESSORSHIPS

The establishment of a number of lecture courses to be served by specialists in their respective subjects is an essential requisite in the work of the final years of an advanced course. Perhaps the most important of such subjects is the history of chemistry and pharmacy. The provision of even a short series of lectures would do much to point the way to investigation in the light of former achievement.

Those desiring to contribute toward any of the purposes named, or others in which they may be interested, will upon request be supplied with a form which may be used for the purpose.

REGISTER OF GRADUATES

DOCTOR OF PHARMACY, JUNE 3, 1930

Kennedy, Margaret H. Cambridge, N. Y.
(1)

BACHELORS OF SCIENCE IN PHARMACY, JUNE 3, 1930

Aaronson, Irving
100 Humboldt Street, Brooklyn, N. Y.
Brown, Gustave Harold
884 Riverside Drive, New York, N. Y.
Bulda, Frank
262 Fifth Avenue, Astoria, N. Y.
Caniparoli, Olga
2529 Cambreling Avenue, New York, N. Y.
Del Vecchio, Henry William
1366 73d Street, Brooklyn, N. Y.
Dick, Lester Colby
98 Division Street, Keyport, N. J.
Edelstein, Victor Hugo
62 East 94th Street, New York, N. Y.
Falk, Herbert Bernard
709 East 24th Street, Paterson, N. J.
Fisher, Jennie
314 Bay 10th Street, Brooklyn, N. Y.
Givens, Horace T. F.
6 Cottage Place, Freehold, N. J.
Glantz, Milton
355 Second Avenue, New York, N. Y.
Jae, Hok Yin
522 West 147th Street, New York, N. Y.
Kaplan, Herbert Benjamin
44 Weirfield Street, Brooklyn, N. Y.
Rockowitz, Louis
1636 76th Street, Brooklyn, N. Y.
Rubenstein, Louis J.
85 Powell Street, Brooklyn, N. Y.
Topilow, Jacob
155 West 29th Street, Brooklyn, N. Y.
Tususian, Nishan
327 West 21st Street, New York, N. Y.
Yukelson, Arthur William
1209 Westchester Avenue, New York, N. Y.
(18)

PHARMACEUTICAL CHEMISTS, JUNE 3, 1930

Benjamin, Irving
35 Brookside Place, New Rochelle, N. Y.
Berest, Joseph
2435 Creston Avenue, New York, N. Y.
Betzner, Clifford William
194-54 114th Road, St. Albans, N. Y.
Canepa, John Joseph
111 Anderson Avenue, Scarsdale, N. Y.

Carlat, Bernard
1914 East 18th Street, Brooklyn, N. Y.
D'Avella, Bernardino Johnson
167 Parker Street, Newark, N. J.
de Domenico, Ida
287 Bleecker Street, New York, N. Y.
Eisenberg, Julius
327 Steinway Avenue, Astoria, N. Y.
Fisher, Sidney Alexander
701 Crotona Park North, New York, N. Y.
Henkin, Samuel
1125 Elder Avenue, New York, N. Y.
Jacobs, Julius
1281 Eastern Parkway, Brooklyn, N. Y.
Keilin, Harry
2800 Bronx Park East, New York, N. Y.
Kucker, George
1114 Magnolia Avenue, Elizabeth, N. J.
Lichtenberg, Raymond
615 Hudson Street, Hoboken, N. J.
Massarsky, Solomon
16 Second Street, Weehawken, N. J.
Moskowitz, Herman
40 Birch Street, Mt. Vernon, N. Y.
Müller, Alfred Carl
18-11 147th Street, Whitestone, N. Y.
Nochimow, Eliezer
489 Willoughby Avenue, Brooklyn, N. Y.
Novins, Henry
523 West 138th Street, New York, N. Y.
Pagano, Alphonse Frederick
213 Van Brunt Street, Brooklyn, N. Y.
Peskin, Benjamin
936 Intervale Avenue, New York, N. Y.
Sadinsky, Hyman Benjamin
60 Maple Street, Norwich, Conn.
Seldeen, Israel Barnett
204 Broadway, Amityville, N. Y.
Seligman, Morris William
317 East 27th Street, New York, N. Y.
Simcovitz, Robert
848 Belmont Avenue, Springfield, Mass.
Stephanou, Eli
33 Thames Street, Norwich, Conn.
Stevens, Eli
1160 59th Street, Brooklyn, N. Y.
(27)

GRADUATES IN PHARMACY, MAY 29, 1930

Abrams, Michael Irving
428 26th Street, Gutenberg, N. J.
Ackerman, Ruth
3271 Westchester Avenue, New York, N. Y.

- Allegra, Frank
 25-76 44th Street, Astoria, N. Y.
 Alperstein, Hyman Meyer
 216 East 10th Street, New York, N. Y.
 Anderson, Arthur Gustave
 4 Travers Avenue, Mamaroneck, N. Y.
 Bacchiani, Torquato
 211 East 57th Street, New York, N. Y.
 Bambara, Aurelius John
 1271 42d Street, Brooklyn, N. Y.
 Bardfeld, Gustave
 9720 Jamaica Avenue, Woodhaven, N. Y.
 Bartha, John Anthony
 165 Hamilton Street, New Brunswick, N. J.
 Bauer, Max
 400 Eighth Street, West New York, N. J.
 Bauer, Paul Edgar
 249 Post Avenue, Westbury, N. Y.
 Berkowitz, Bernard
 35 Tompkins Avenue, Brooklyn, N. Y.
 Beyer, Isadore
 Spring Glen, N. Y.
 Bittar, Albert
 5101 Sixth Avenue, Brooklyn, N. Y.
 Blatt, Jacob
 3540 Rochambeau Avenue, New York, N. Y.
 Blumberg, Lester
 180 Danforth Avenue, Jersey City, N. J.
 Boxer, Meyer
 131 Rockaway Parkway, Brooklyn, N. Y.
 Bronzo, Ralph
 2070 West 9th Street, Brooklyn, N. Y.
 Bussle, Harry
 485 East 173d Street, New York, N. Y.
 Calabrese, Savino Daniel
 826 Second Avenue, New York, N. Y.
 Cassara, Anthony V.
 1121 40th Street, Brooklyn, N. Y.
 Charnes, Randolph
 495 East 174th Street, New York, N. Y.
 Chernoff, Max
 607 Hopkinson Avenue, Brooklyn, N. Y.
 Cimino, John Anthony
 1049 67th Street, Brooklyn, N. Y.
 Cipnic, Herman
 1068 Newport Street, Brooklyn, N. Y.
 Cohen, Bernard Martin
 2001 Douglas Street, Brooklyn, N. Y.
 Cohen, Harry
 561 West 163d Street, New York, N. Y.
 Cohen, Henry
 325 Wallabout Street, Brooklyn, N. Y.
 Cohen, Isaac
 591 East 141st Street, New York, N. Y.
 Cohen, Sidney
 670 Garden Street, New York, N. Y.
 Cohen, William
 726 Rockaway Avenue, Brooklyn, N. Y.
 Cohler, Meyer
 537 West 141st Street, New York, N. Y.
 Coppola, Angelo
 33-48 84th Street, Jackson Heights, N. Y.
 Costabile, Hugo
 872 East 163d Street, New York, N. Y.
 Criscuolo, Andrew
 792 Grand Avenue, New Haven, Conn.
 Davis, Benjamin Richard
 3723 Eighteenth Avenue, Brooklyn, N. Y.
 Decter, Jacob
 11 McDonough Street, Brooklyn, N. Y.
 Denker, Benjamin
 1725 Fulton Avenue, New York, N. Y.
 Diamondstein, Joseph
 1506 Walton Avenue, New York, N. Y.
 Dicker, Morris
 228 6th Street, New York, N. Y.
 Dier, Philip
 2840 East 6th Street, Brighton Beach, N. Y.
 Dinin, Jack
 1369 Intervale Avenue, New York, N. Y.
 Dogan, Max
 1594 East 10th Street, Brooklyn, N. Y.
 Dwoskin, Barney William
 3001 West 24th Street, New York, N. Y.
 Ellenson, Barnet
 867 Crotona Park North, New York, N. Y.
 Epstein, Samuel Irving
 2067 Haviland Avenue, New York, N. Y.
 Failla, Silvio Joseph
 740 Main Street, North Bergen, N. J.
 Falk, Benjamin
 312 Madison Street, New York, N. Y.
 Fazio, Ignatius
 1618 77th Street, Brooklyn, N. Y.
 Feldman, Morris
 120 Bristol Street, Brooklyn, N. Y.
 Fermaglich, Louis Joseph
 67 Sheriff Street, New York, N. Y.
 Fialkow, Benjamin
 547 Howard Avenue, Brooklyn, N. Y.
 Firemark, Samuel
 107-57 Union Hall Street, Jamaica, N. Y.
 Flaherty, Sister Mary Oswald
 Marywood College, Scranton, Pa.
 Flaumenbaum, Irving
 345 West 86th Street, New York, N. Y.
 Fleissig, Arthur
 378 East 10th Street, New York, N. Y.
 Flexer, Isidore
 581 George Street, New Haven, Conn.
 Florence, Paul Adrien
 213 Pomander Road, Mineola, N. Y.
 Form, Milton
 1828 Myrtle Avenue, Brooklyn, N. Y.
 Frager, Joseph Saul
 27 Washington Place, Newburgh, N. Y.

- Frankel, Isidore Isaac
 156 Second Avenue, New York, N. Y.
 Frankfort, Morris
 1980 East 26th Street, Brooklyn, N. Y.
 Fried, Emanuel
 1584 East 172d Street, New York, N. Y.
 Friedman, Irving
 522 Christopher Avenue, Brooklyn, N. Y.
 Gellar, Henry
 1003 Clarkson Avenue, Brooklyn, N. Y.
 Getzlek, George Richfield Springs, N. Y.
 Glick, Percy
 2716 Hubbard Street, Brooklyn, N. Y.
 Gluck, Morton
 1560 Amsterdam Avenue, New York, N. Y.
 Gralewski, Walter Joseph
 757 41st Street, Brooklyn, N. Y.
 Greenstein, Edward
 361 Van Sicklen Avenue, Brooklyn, N. Y.
 Gressey, Henry
 31-14 36th Street, Astoria, N. Y.
 Gualiarido, Vincent Francis
 28 Harrison Avenue, Monson, Mass.
 Haimowitz, Benjamin
 23 Tapscott Street, Brooklyn, N. Y.
 Hamburg, David
 1011 Freeman Street, New York, N. Y.
 Hirschmann, Jonas
 145 Belmont Avenue, Jersey City, N. J.
 Holzman, Jack
 1200 First Avenue, New York, N. Y.
 Huber, Henry
 5 3d Street, Weehawken, N. J.
 Huger, Charles
 1421 Crotona Avenue, New York, N. Y.
 Hurwitz, Myer
 1402 South McBride Street, Syracuse, N. Y.
 Jackson, Joseph
 948 Tiffany Street, New York, N. Y.
 Jurow, Louis Monticello, N. Y.
 Kanfer, Daniel
 140 Wilson Street, Brooklyn, N. Y.
 Kaufman, George Sam
 569 Saratoga Avenue, Brooklyn, N. Y.
 Klein, Joseph
 1532 West 10th Street, Brooklyn, N. Y.
 Klorman, Joseph
 152 East 96th Street, Brooklyn, N. Y.
 Kobelivker, Joseph
 734 Saratoga Avenue, Brooklyn, N. Y.
 Koretzky, Leon
 769 Willoughby Avenue, Brooklyn, N. Y.
 Koslowsky, David
 1967 71st Street, Brooklyn, N. Y.
 Kosowsky, Milton Stanley
 52 Summer Street, New London, Conn.
 Kossow, Solomon
 81 East 108th Street, New York, N. Y.
 Kressel, Marcus
 50 East 3d Street, New York, N. Y.
 Kyzr, Anton Louis
 30-70 45th Street, Astoria, N. Y.
 Lacovara, George
 754 East 215th Street, New York, N. Y.
 Lauria, Anthony
 460 Fairmount Avenue, Jersey City, N. J.
 Lawentman, Julius
 428 Jackson Avenue, New York, N. Y.
 Lerman, Nathan Colchester, Conn.
 Lerner, Isadore
 50 East 3d Street, New York, N. Y.
 Levine, Theodore
 371 Crown Street, Brooklyn, N. Y.
 Liberman, Joseph Rudolph
 1061 Intervale Avenue, New York, N. Y.
 Liebowitz, Harry C.
 1152 College Avenue, New York, N. Y.
 Lindheim, Michael
 29 Rockaway Parkway, Brooklyn, N. Y.
 Lissman, Harold
 1815 Prospect Avenue, New York, N. Y.
 Loscalzo, Joseph V.
 125 46th Street, Corona, N. Y.
 McDavid, Sydney Sigesman Alonzo
 859 Home Street, New York, N. Y.
 Maggio, John
 107 Ridgewood Avenue, Brooklyn, N. Y.
 Maisel, Milton
 1018 East 163d Street, New York, N. Y.
 Mandel, Charles
 341 Wythe Avenue, Brooklyn, N. Y.
 Mandelblit, Morris M.
 893 Lafayette Avenue, Brooklyn, N. Y.
 Manfre, Stephen
 204 Baltic Street, Brooklyn, N. Y.
 Mariani, Faustina
 3350 White Plains Avenue, New York, N. Y.
 Marion, Bernard
 604 West 191st Street, New York, N. Y.
 Marra, Joseph Richard
 11 Ohio Avenue, Port Washington, N. Y.
 Marshall, Lillian
 851 Tinton Avenue, New York, N. Y.
 Matragrano, Anthony John
 Bedford Hills, N. Y.
 Matthias, Eulalie Ravina
 226 West 123d Street, New York, N. Y.
 Mazie, Jack
 1061 Hall Place, New York, N. Y.
 Mazur, Samuel
 359 Madison Street, New York, N. Y.
 Meiselman, Harold Engel
 9 Northern Avenue, New York, N. Y.
 Miller, Bernard
 1372 Grant Avenue, New York, N. Y.

- Millner, Samuel
 73 Grafton Street, Brooklyn, N. Y.
 Mininberg, Harry
 909 Kelly Street, New York, N. Y.
 Montesano, Benjamin
 9 Green Street, Paterson, N. J.
 Murdock, Peter C.
 25 Amsterdam Place, Mt. Vernon, N. Y.
 Mussawir, Alfred George
 436 45th Street, Brooklyn, N. Y.
 Naftal, Benjamin Harold
 329 East 94th Street, New York, N. Y.
 Napoliello, Joseph Francis
 21 Grace Street, Jersey City, N. J.
 Nemiroff, Max Milton
 1222 45th Street, Brooklyn, N. Y.
 Nestampower, Morris
 485 East 95th Street, Brooklyn, N. Y.
 Nieporent, Morris
 63 East 118th Street, New York, N. Y.
 Orkand, Sidney
 2471 Morris Avenue, New York, N. Y.
 Paley, Jacob
 102-44 Jamaica Avenue, Richmond Hill,
 N. Y.
 Papalinsky, Morris
 1001 Lincoln Place, Brooklyn, N. Y.
 Pekarsky, Morris
 14 Woodside Avenue, Brooklyn, N. Y.
 Peltz, Phillip William
 319 27th Street, Newport News, Va.
 Platt, Max
 953 East 184th Street, New York, N. Y.
 Posner, Albert Hyman
 923 Fox Street, New York, N. Y.
 Pospisil, Rudolph Joseph
 30-70 32d Street, Astoria, N. Y.
 Rabinowitz, Kalman
 236 Madison Street, New York, N. Y.
 Ramo, Louis
 34 St. Marks Avenue, Rockville Center, N. Y.
 Reich, Bernard
 163 Smith Street, Brooklyn, N. Y.
 Reife, William
 1023 Hopkinson Avenue, Brooklyn, N. Y.
 Reisch, George F.
 60 East Palisade Boulevard, Palisade Park,
 N. J.
 Rende, Alfonso Louis
 723 East 229th Street, New York, N. Y.
 Robinson, Abraham
 237 Hart Street, Brooklyn, N. Y.
 Ronick, Charles
 1251 Wheeler Avenue, New York, N. Y.
 Ronsheim, Julian
 808 West End Avenue, New York, N. Y.
 Rosenberg, David
 128 Goerck Street, New York, N. Y.
 Rosenberg, Hyman
 387 Williams Avenue, Brooklyn, N. Y.
 Rosenberg, Irving
 87 Siegel Street, Brooklyn, N. Y.
 Rosenberg, Isaac
 1340 Grant Avenue, New York, N. Y.
 Rosenberg, Samuel
 1175 East 9th Street, Brooklyn, N. Y.
 Rosenman, Herman
 610 Concord Avenue, New York, N. Y.
 Rosenthal, William
 55 West 110th Street, New York, N. Y.
 Rosmosky, Abraham
 27 East 110th Street, New York, N. Y.
 Rothbaum, Milton
 2800 Bronx Park East, New York, N. Y.
 Rothberg, Philip
 1566 St. Marks Avenue, Brooklyn, N. Y.
 Rothman, Abraham Herbert
 1335 College Avenue, New York, N. Y.
 Rovner, Louis
 416 Henry Street, Brooklyn, N. Y.
 Rubenstein, Arthur
 505 Essex Street, Brooklyn, N. Y.
 Rubin, Benjamin
 493 Second Avenue, New York, N. Y.
 Rubin, Harold
 870 Riverside Drive, New York, N. Y.
 Safarik, Mildred Robas
 90-54 178th Street, Jamaica, N. Y.
 Saltzman, David
 108 Moore Street, Brooklyn, N. Y.
 Schechter, Hyman
 68 St. Marks Place, New York, N. Y.
 Schechter, Morris
 348 East 9th Street, New York, N. Y.
 Scheer, John Jonas
 3433 De Kalb Avenue, New York, N. Y.
 Scher, Wilfred
 1157 Manor Avenue, New York, N. Y.
 Scherer, Paul
 126 East 2d Street, New York, N. Y.
 Schneck, Max R.
 2086 Bronx Park East, New York, N. Y.
 Scholefield, Charles Wesley
 23 Ralph Street, Beacon, N. Y.
 Schulman, Solomon
 840 Dawson Street, New York, N. Y.
 Schwartz, Hyman
 819 East 168th Street, New York, N. Y.
 Scouras, Constantine
 29 West 65th Street, New York, N. Y.
 Shapiro, Daniel
 1518 East 172d Street, New York, N. Y.
 Sherman, Harold
 1750-60 Bathgate Avenue, New York, N. Y.
 Shub, Abraham
 632 Vermont Street, Brooklyn, N. Y.

- Shucard, Jacob
920 Stone Avenue, Brooklyn, N. Y.
- Siderman, Morris
2784 East 7th Street, Brooklyn, N. Y.
- Siegel, Joseph
Ferndale, N. Y.
- Siegel, Solomon
2300 Briggs Avenue, c/o Liebman, New York, N. Y.
- Silverman, Max
646 Bradford Street, Brooklyn, N. Y.
- Singer, Max
296 Delancey Street, New York, N. Y.
- Slobin, Jacob
807 28th Street, Union City, N. J.
- Slutzkin, Frederick Israel
667 Union Avenue, New York, N. Y.
- Spallucci, Michael
516 Wheatland Avenue, Bound Brook, N. J.
- Spanier, Irving
117 Clymer Street, Brooklyn, N. Y.
- Spetalnick, Max J.
1245 Ward Avenue, New York, N. Y.
- Spirko, Stephen Michael
5 Wilson Street, Jessup, Pa.
- Steinberg, Isidore
1180 47th Street, Brooklyn, N. Y.
- Steiner, Elias
880 East 178th Street, New York, N. Y.
- Stitzel, Louis
308 East 6th Street, New York, N. Y.
- Stolper, Morris
22 East 108th Street, New York, N. Y.
- Strauss, Morris
104-06 East 2d Street, New York, N. Y.
- Thompson, Joseph Henry
118-120 Eldridge Street, New York, N. Y.
- Tishler, George
1593 Prospect Place, Brooklyn, N. Y.
- Tobias, Meyer
537 Palisade Avenue, Jersey City, N. J.
- Troub, Louis
1728 Sterling Place, Brooklyn, N. Y.
- Tunis, Philip
212 East 105th Street, New York, N. Y.
- Twersky, Mary
1843 West Rockland Street, Philadelphia, Pa.
- Valerio, Leo Joseph
345 West 21st Street, New York, N. Y.
- Vasiliades, Angelo
257 2d Street, Lakewood, N. J.
- Weidenbaum, Ralph
248 East Houston Street, New York, N. Y.
- Weinberg, Victor
1611 St. Marks Avenue, New York, N. Y.
- Weinstein, Louis
1808 75th Street, Brooklyn, N. Y.
- Weintraub, Hyman
57 Suffolk Street, New York, N. Y.
- Winokur, Aaron
2223 Surf Avenue, Brooklyn, N. Y.
- Wisztreich, Edward Odon
23 Post Avenue, New York, N. Y.
- Zeichner, Lewis Abraham
1258 Fteley Avenue, New York, N. Y.
- Zunin, Louis
980 Sutter Avenue, Brooklyn, N. Y.
(209)
- BACHELOR OF SCIENCE IN PHARMACY,
OCTOBER 29, 1930
- Lauri, Victor
210 De Craw Avenue, Brooklyn, N. Y.
(1)
- PHARMACEUTICAL CHEMIST, OCTOBER 29, 1930
- Sacharow, Samuel Sachne
7111 Twentieth Avenue, Brooklyn, N. Y.
(1)
- GRADUATES IN PHARMACY, OCTOBER 7, 1930
- Asbell, Joseph
327 East 22d Street, Brooklyn, N. Y.
- Capobianco, Dominick Thomas
506 Brook Avenue, New York, N. Y.
- Crafa, Mary P.
9412 Van Wyck Avenue, Richmond Hill, N. Y.
- Gitlin, Benjamin
274 East 175th Street, New York, N. Y.
- Gold, Morris
1096 West Farms Road, c/o Schlosberg, New York, N. Y.
- Goldfarb, Samuel
630 West 172d Street, New York, N. Y.
- Mordente, Constance Florence
1860 Watson Avenue, New York, N. Y.
- Mordente, Josephine
1860 Watson Avenue, New York, N. Y.
- Saperstein, Milton
1519 Plimpton Avenue, New York, N. Y.
- Schleider, Meyer K.
122 West 55th Street, Bayonne, N. J.
- Schlur, Sidney
2012 East 13th Street, Brooklyn, N. Y.
- Schwartz, Joseph George
250 East 30th Street, New York, N. Y.
- Silverstein, George Jeremiah
12 Pinehurst Avenue, New York, N. Y.
- Smith, Van Roy
130 West 142d Street, New York, N. Y.
- Webman, Larry
402 South Second Avenue, Brooklyn, N. Y.
- Wollenberg, Hamilton
1914 Nesmith Place, Astoria, N. Y.
(16)

REGISTER OF STUDENTS, SESSION OF 1930-1931

GRADUATE COURSE

Steinberg, Abraham
 465 Hinsdale Street, Brooklyn, N. Y.
 Tususian, Nishan
 327 West 21st Street, New York, N. Y.
 (2)

FOURTH YEAR UNIVERSITY CLASS

Benjamin, Irving
 35 Brookside Place, New Rochelle, N. Y.
 Betzer, Clifford William
 194-54 114th Road, St. Albans, N. Y.
 Canepa, John Joseph
 111 Anderson Avenue, Scarsdale, N. Y.
 Carlat, Bernard
 1914 East 18th Street, Brooklyn, N. Y.
 Dunay, Maurice
 1311 Grant Avenue, New York, N. Y.
 Keilin, Harry
 2800 Bronx Park East, New York, N. Y.
 Lichtenberg, Raymond
 615 Hudson Street, Hoboken, N. J.
 Massarsky, Solomon
 16 2d Street, Weehawken, N. J.
 Müller, Alfred Carl
 18-11 147th Street, Whitestone, N. Y.
 Nochimow, Eliezer
 489 Willoughby Avenue, Brooklyn, N. Y.
 Sadinsky, Hyman Benjamin
 60 Maple Street, Norwich, Conn.
 Seligman, Morris William
 317 East 27th Street, New York, N. Y.
 Stephanou, Eli
 33 Thames Street, Norwich, Conn.
 Stevens, Eli
 1160 59th Street, Brooklyn, N. Y.
 (14)

THIRD YEAR UNIVERSITY CLASS

Burch, Collingwood Vincent
 228 West 137th Street, New York, N. Y.
 Cassano, Caesar
 2147 Washington Avenue, New York, N. Y.
 Chesler, Morris
 4338 Gunther Avenue, New York, N. Y.
 Cohen, Gertrude
 93 Palisade Avenue, Hudson Heights, N. J.
 Fauci, Stephen Antonio
 1669 79th Street, Brooklyn, N. Y.
 Fehder, Paul
 107-21 Union Hall Street, Jamaica, N. Y.
 Feinberg, Solomon
 2820 West 36th Street, Brooklyn, N. Y.
 Gain, Ethel Annie Louise Jeffersonville, N. Y.
 Goldberg, Meyer
 1125 Noble Avenue, New York, N. Y.

Hoffman, Bernard William
 9127 St. Charles Court, Woodhaven, N. Y.
 Levsky, William Samuel
 2818 Heath Avenue, New York, N. Y.
 Lipschitz, Leo
 7007 Nineteenth Avenue, Brooklyn, N. Y.
 Mar, George Kaye
 225 East 31st Street, New York, N. Y.
 Marcus, Irving
 791 Troy Avenue, Brooklyn, N. Y.
 Mehlsak, Harry Nathan
 1985 Creston Avenue, New York, N. Y.
 Merring, Harry Louis
 3568 North 163d Street, Flushing, N. Y.
 Miller, Benjamin
 91 Center Street, Ellenville, N. Y.
 Orfuss, Abraham Jack
 2833 West 25th Street, Brooklyn, N. Y.
 Ronsheim, Julian
 808 West End Avenue, New York, N. Y.
 Schwartz, Israel Charles
 3 Manitou Avenue, Poughkeepsie, N. Y.
 Smith, Henry
 172-11 Highland Avenue, Jamaica, N. Y.
 Smith, Robert Jerome
 483 Hancock Street, Brooklyn, N. Y.
 Vigdarowitz, Martin
 65 East 99th Street, New York, N. Y.
 (23)

SECOND YEAR UNIVERSITY CLASS

Armao, John Anthony
 1024 Boston Road, New York, N. Y.
 Berg, Louis
 2709 Webb Avenue, New York, N. Y.
 Brown, Reginald C.
 54 Hawthorne Avenue, Yonkers, N. Y.
 Chasanowitz, Bernard
 96-28 Corona Avenue, Corona, N. Y.
 Clunie, Joseph Norman
 424 West 146th Street, New York, N. Y.
 D'Orazio, Robert Romeo
 767 East 237th Street, New York, N. Y.
 Dorr, Elinor Utey
 31 St. Marks Place, West Brighton, N. Y.
 Freedman, Samuel
 69 East 105th Street, New York, N. Y.
 Givens, Johnson B.
 6 Cottage Place, Freehold, N. J.
 Goldsmith, Evelyn Gergette
 414 East 141st Street, New York, N. Y.
 Hoeler, William J.
 99 Rose Terrace, Newark, N. J.
 Koller, Joseph Michael
 340 East 85th Street, New York, N. Y.

Pfister, C. Leonard
49 East 19th Street, Brooklyn, N. Y.
 Pozdena, Milton Alto
6805 Woodside Avenue, Winfield, N. Y.
 Sasnor, Ernest Jackson
1227 Nelson Avenue, New York, N. Y.
 Sher, Benjamin Philip
272 Crown Street, Brooklyn, N. Y.
 Thomas, James Grant Wells River, Vt.
 Vigilante, Ovidio Carl
41-21 Junction Boulevard, Corona, N. Y.
 Wight, Christian Frank
35 Greenwood Avenue, Bethel, Conn.
 Ziliotto, Enrico
121-20 Liberty Avenue, Richmond Hill,
N. Y.
 Zlinkoff, Bernard Welch
233 West 112th Street, New York, N. Y.
 (21)

FIRST YEAR UNIVERSITY CLASS

Angello, Mary Veronica
27 Cardott Street, Ridgway, Penn.
 Bogart, Zelda Schmilevna
18-19 Ditmas Avenue, Astoria, N. Y.
 Burger, Irving
170 Union Avenue, Peekskill, N. Y.
 Cofsky, Eugene
640 West 171st Street, New York, N. Y.
 Fertig, Tobias Thomas
141 Carlton Avenue, Brooklyn, N. Y.
 Fusco, Luke Attilio
471 West 159th Street, New York, N. Y.
 Gabriel, Joseph, Jr.
1647 Barnum Avenue, Bridgeport, Conn.
 Geller, Manuel
1418 Longfellow Avenue, New York, N. Y.
 Gioia, Roland George
409 Monastery Place, Union City, N. J.
 Goldman, Isidore Charles Riverhead, N. Y.
 Granberg, (Mrs.) Milda Otilia
169 Montgomery Street, Scarsdale, N. Y.
 Green, Alex
155 East 94th Street, Brooklyn, N. Y.
 Gross, James Ernest
720 North Montello Street, Brockton, Mass.
 Kucker, Theodore David
1114 Magnolia Avenue, Elizabeth, N. J.
 Kupersmith, Libby
260 Hillside Avenue, Leonia, N. J.
 Lizio, Joseph Alfred
22-68 Crescent Street, Long Island City,
N. Y.
 Lyons, Nathan
1673 74th Street, Brooklyn, N. Y.
 Mende, William Charles
44 Clifton Avenue, Clifton, N. J.
 Mont, Isadore
Monhegan Colony, Peekskill, N. Y.

Mucelli, Dante
4031 Third Avenue, New York, N. Y.
 Ortega, Mario DeJesus y Canet
1 Prospect Park, West, Brooklyn, N. Y.
 Sacks, Mildred Mae
2410 Walton Avenue, New York, N. Y.
 Schneider, William Edward Herman, Jr.
90 Engle Street, Englewood, N. J.
 Seltzer, Walter Maurice
601 West 190th Street, New York, N. Y.
 Stern, Aaron L.
1165 Gerard Avenue, New York, N. Y.
 Wackstein, Morris
716 Cauldwell Avenue, New York, N. Y.
 (26)

THIRD YEAR COLLEGE CLASS

Abramson, Jacob
15 Stevens Street, White Plains, N. Y.
 Achiron, Harold
54 Lewis Avenue, Brooklyn, N. Y.
 Adelman, Rubin
761 Elton Avenue, New York, N. Y.
 Aloisi, Frank
1251 Ward Avenue, New York, N. Y.
 Anderson, Ometta Catheryn
706 Terrace Place, Muskagee, Okla.
 Armband, Max
75 East 4th Street, New York, N. Y.
 Arnowitz, Barnett
3127 Seymour Avenue, New York, N. Y.
 Avstreh, Albert
503 West 176th Street, New York, N. Y.
 Barile, Emerico Alfred
235 West 67th Street, New York, N. Y.
 Bateman, Edward Henry
36 North Street, Pulaski, N. Y.
 Bauer, Charles William
249 Post Avenue, Westbury, N. Y.
 Beghin, Frank A.
336 East 107th Street, New York, N. Y.
 Belfer, Samuel
1136 Teller Avenue, Brooklyn, N. Y.
 Belinsky, Benjamin
2600 Creston Avenue, New York, N. Y.
 Berkowitz, Aaron Joseph
106 West 61st Street, New York, N. Y.
 Berlin, Joseph
106 Quincy Street, Passaic, N. J.
 Berliner, Meyer
6 Margot Place, Great Neck, N. Y.
 Bernstein, Sydney
2111 Hughes Avenue, New York, N. Y.
 Birdslow, Kent Bishop Lacona, N. Y.
 Blank, George
20 East Gun Hill Road, New York, N. Y.
 Bloom, Albert Sidney
58 Fairmount Street, Norwich, Conn.

- Bloom, Isidore
711 East 9th Street, New York, N. Y.
- Boghosian, Paul Der
488 New York Avenue, Union City, N. J.
- Bookstaber, Leo
32-42 33d Street, Long Island City, N. Y.
- Boxer, Louis
427 East 170th Street, New York, N. Y.
- Braswell, James LeRoy
265 Flatbush Avenue, Brooklyn, N. Y.
- Brown, Charles Lloyd
2054 Fletcher Avenue, Fort Lee, N. J.
- Buono, Joseph
30 Cornelia Street, New York, N. Y.
- Calabrese, Theodore Vincent
3719 Foster Avenue, Brooklyn, N. Y.
- Calles, Nicholas Benjamin
22 VanWort Place, Jersey City, N. J.
- Capillo, Joseph Bruno
8717 94th Street, Woodhaven, N. Y.
- Caprio, Ralph
140 Parker Street, Newark, N. J.
- Carpinelli, Michael Joseph
281 Linden Avenue, Jersey City, N. J.
- Carroll, Harry
570 Schenck Avenue, Brooklyn, N. Y.
- Caruso, Mario
491 Warren Street, Brooklyn, N. Y.
- Cassera, Grace Leona
1531 68th Street, Brooklyn, N. Y.
- Catozzio, Peter
729 Adam Street, West New York, N. J.
- Cecere, Natale
431 28th Street, Woodcliff, N. J.
- Charlip, Abraham M.
877 Rutland Road, Brooklyn, N. Y.
- Chefetz, Hyman Herman
540 East 5th Street, New York, N. Y.
- Chernow, Jack
518 Pennsylvania Avenue, Brooklyn, N. Y.
- Chomsky, Isidore
1443 38th Street, Brooklyn, N. Y.
- Christmann, Frederick Walter
34 Oak Street, Valley Stream, N. Y.
- Cohen, Abe
2147 Washington Avenue, New York, N. Y.
- Cohen, Alexander
486 Kosciusko Street, Brooklyn, N. Y.
- Cohen, Charles
11 Tudor Place, New York, N. Y.
- Cohen, David
100 Wegman Parkway, Jersey City, N. J.
- Cohen, Frank
2216 Douglass Street, Brooklyn, N. Y.
- Cohen, Herman
1662 45th Street, Brooklyn, N. Y.
- Cohen, Joseph
110 Jersey Avenue, Port Jervis, N. Y.
- Cohen, Maximilian
61 East 99th Street, New York, N. Y.
- DeMucci, Frank Robert
40-36 97th Street, Corona, N. Y.
- Dworkowitz, Jesse
420 Avenue S, Brooklyn, N. Y.
- Edelstein, Isadore
305 East Mine Street, Hazleton, Penn.
- Eichler, Julian
31-11 85th Street, Jackson Heights, N. Y.
- Eichner, Jerome
51 Farrington Street, Flushing, N. Y.
- Eicken, Nathan
180 Mercer Street, Jersey City, N. J.
- Eisenberg, Robert
1424 Parker Street, New York, N. Y.
- Epstein, Marvin Maurice
110 Walnut Street, Springfield, Mass.
- Epstein, Paul
72 Jackson Avenue, Jersey City, N. J.
- Evans, Max
364 Quincy Street, Brooklyn, N. Y.
- Feigelson, Irving
2838 West 19th Street, Brooklyn, N. Y.
- Feinberg, Irving Bernard
469 Cleveland Street, Brooklyn, N. Y.
- Ferrara, Vincent
1714 71st Street, Brooklyn, N. Y.
- Fialk, Robert
198 Hopkins Avenue, Jersey City, N. J.
- Fichiera, Michael
1511 Castlehill Avenue, New York, N. Y.
- Ficks, Jacob
8675 Bay 16th Street, Brooklyn, N. Y.
- Fishberg, Murray Leonard
153 Morton Place, New York, N. Y.
- Fitzer, Aaron
1166 Theriot Avenue, New York, N. Y.
- Folcarelli, Urbino E. G.
108 East 87th Street, New York, N. Y.
- Fox, Jacob
162 Lee Avenue, Brooklyn, N. Y.
- Frank, Jacob
493 East 135th Street, New York, N. Y.
- Frankel, David
1156 Eastern Parkway, Brooklyn, N. Y.
- Frankel, Leonard Robert
764 Trinity Avenue, New York, N. Y.
- Frankel, Sidney
744 Hudson Avenue, West New York, N. J.
- Freed, Israel
285 Van Buren Street, Brooklyn, N. Y.
- Friedberg, Alexander
61 East 95th Street, New York, N. Y.
- Friedland, Peter Robert
3999 Dickinson Avenue, New York, N. Y.
- Gaal, Albert George
574 Manhattan Avenue, Brooklyn, N. Y.

- Garrambone, Carmelo Joseph
 25-27 33d Street, Long Island City, N. Y.
 Geller, Isidore Benjamin
 1218 Hoe Avenue, New York, N. Y.
 Gellis, Joseph
 156 East 171st Street, New York, N. Y.
 Gerson, Alex
 557 Koscuisko Street, Brooklyn, N. Y.
 Ginsberg, (Mrs.) Asna Mendelevska
 53 West Tremont Street, New York, N. Y.
 Gise, Meyer
 1862 Bay Ridge Parkway, Brooklyn, N. Y.
 Giuliani, Arthur J.
 246½ Central Avenue, Union City, N. J.
 Glazer, Harry
 1857 Washington Avenue, New York, N. Y.
 Glick, William Joseph
 1694 Coventry Road, Cleveland, Ohio
 Glinefsky, William
 1701 Eastburn Avenue, New York, N. Y.
 Godlin, Abraham Woodbourne, N. Y.
 Gold, Joseph
 1434 Bryant Avenue, New York, N. Y.
 Goldstein, Martin
 505 Bergen Avenue, Jersey City, N. J.
 Goldstein, Max
 871 Longwood Avenue, New York, N. Y.
 Gottlieb, George
 310 East 30th Street, New York, N. Y.
 Grant, Raymond Lorenzo
 1 Charlton Street, New York, N. Y.
 Greenfader, Morris Benjamin
 2223 62d Street, Brooklyn, N. Y.
 Gutes, Morris Charles
 17-27 Van Sicklen Avenue, Brooklyn, N. Y.
 Halper, Arthur Mathews
 1055 University Avenue, New York, N. Y.
 Halper, Lewis
 1208 Maple Avenue, Peekskill, N. Y.
 Halperin, Irving Max
 419 Ocean Avenue, Jersey City, N. J.
 Hamann, George Peter Dietrich
 398 Himrod Street, Brooklyn, N. Y.
 Hartman, Edward
 123 Cornelia Street, Brooklyn, N. Y.
 Herbst, Arthur Stephan
 342 East 77th Street, New York, N. Y.
 Hickman, Louis Harry
 18 St. Nickolas Place, New York, N. Y.
 Hofmann, Henry Conrad
 305 Dill Place, Brooklyn, N. Y.
 Homer, Theodore Howard, Jr.
 207 West 140th Street, New York, N. Y.
 Horowitz, Alex
 79 East 107th Street, New York, N. Y.
 Horowitz, Barnet
 811 Avenue U, Brooklyn, N. Y.
 Horowitz, Samuel Louis
 558 Vermont Street, Brooklyn, N. Y.
 Hubbard, Earl Edmund
 126 Second Avenue, Bay Shore, N. Y.
 Israel, Samuel
 563 Bedford Avenue, Brooklyn, N. Y.
 Jacaruso, John
 150 Sullivan Street, New York, N. Y.
 Jacobs, Herman
 296 Rochester Avenue, Brooklyn, N. Y.
 Jacobs, Meyer Jack
 109 East Broadway, New York, N. Y.
 Jaffe, Max Liberty, N. Y.
 Kaplan, Samuel
 520 Medbury Avenue, Detroit, Mich.
 Kaufman, Michael Israel
 1350 Fulton Avenue, New York, N. Y.
 Kaufman, Sydney William
 27 River Road, Fair Lawn, N. J.
 Keller, Murray
 191 South 9th Street, Brooklyn, N. Y.
 Kerewsky, Isidor
 360 Garden Avenue, Mt. Vernon, N. Y.
 Koslowsky, Harry
 1439 East 37th Street, Brooklyn, N. Y.
 Kramer, Benjamin
 1143 Longfellow Avenue, New York, N. Y.
 Kugelmass, Samuel
 155 South 4th Street, Brooklyn, N. Y.
 Lampert, Samuel
 431 Pennsylvania Avenue, Brooklyn, N. Y.
 Last, Ben
 250 East Gun Hill Road, New York, N. Y.
 Lehrer, Morris
 186 Riverdale Avenue, Brooklyn, N. Y.
 Lepard, Thomas Horley
 570 West 204th Street, New York, N. Y.
 Levine, Hyman Israel
 433 Rockaway Parkway, Brooklyn, N. Y.
 Levine, Jonas
 2282 East 7th Street, Brooklyn, N. Y.
 Levine, Samuel
 801 West 181st Street, New York, N. Y.
 Levitt, Morris
 8950 Woodhaven Boulevard, Woodhaven,
 N. Y.
 Lewitus, Richard
 1517 Walton Avenue, New York, N. Y.
 Lipetz, Morris
 Elton Street, Riverhead, N. Y.
 Lipschitz, Edward
 236 East 82d Street, New York, N. Y.
 Liss, Max
 327 East 20th Street, New York, N. Y.
 Lopez, Anacleto
 21 East 118th Street, New York, N. Y.
 Loss, Margaret
 1581 Fulton Avenue, New York, N. Y.

- MacCurran, James Francis
12 3d Street, Weehawken, N. J.
- McSharry, William
10 Dashby Court, Rockaway Beach, N. Y.
- Madansky, Nathan
430 Richmond Avenue, Maplewood, N. J.
- Malmud, Mayer M.
4320 Sixteenth Avenue, Brooklyn, N. Y.
- Mancini, Thomas Anthony
316 East 29th Street, New York, N. Y.
- Marino, Frank Ermando
20-23 120th Street, College Point, N. Y.
- Marks, Edward Herman
400 East Raynor Avenue, Syracuse, N. Y.
- Marotta, Raphael Anthony
4307 42d Street, Sunnyside, N. Y.
- Mascellaro, Hector Edward
111 Taylor Street, Long Island City, N. Y.
- Matthes, Herbert Max
209 12th Street, College Point, N. Y.
- Megna, John
1080 Sutter Avenue, Brooklyn, N. Y.
- Mersel, Joseph
215 West 10th Street, New York, N. Y.
- Meyer, Morris
542 East 14th Street, New York, N. Y.
- Meyerson, Abraham
1041 Elden Avenue, New York, N. Y.
- Miller, Abraham
197 Van Buren Street, Brooklyn, N. Y.
- Miller, Benjamin
1347 40th Street, Brooklyn, N. Y.
- Mishler, Benjamin
52 Belmont Avenue, Brooklyn, N. Y.
- Monestersky, Morris
1459 54th Street, Brooklyn, N. Y.
- Moroch, David
2116 66th Street, Brooklyn, N. Y.
- Nelson, Isidore Ben
813 Center Street, Bowling Green, Ky.
- Newer, Joseph George
1514 Lincoln Place, Brooklyn, N. Y.
- Novendstern, David
130 Ocean Avenue, Jersey City, N. J.
- Ochitell, Morris
2921 West 36th Street, Brooklyn, N. Y.
- Oppenheim, Emanuel
4802 Ft. Hamilton Parkway, Brooklyn, N. Y.
- Palanzo, Charles Rocco
134 Willow Street, Yonkers, N. Y.
- Perry, Harold
1561 Union Street, Brooklyn, N. Y.
- Perry, Sidney
1561 Union Street, Brooklyn, N. Y.
- Perveler, Martin Leo
1710 Hoe Avenue, New York, N. Y.
- Petziner, Norman
1225 Seneca Avenue, New York, N. Y.
- Pomerantz, Max
150 East 2d Street, New York, N. Y.
- Ponticello, Francis Anthony
52 Council Street, Rochester, N. Y.
- Posner, Sidney
923 Fox Street, New York, N. Y.
- Razzo, Frances Mary Amelia
125 Second Avenue, New York, N. Y.
- Ricciardi, Ralph
1957 West 4th Street, Brooklyn, N. Y.
- Risch, Samuel Saul
3052 La Salle Avenue, New York, N. Y.
- Riveles, George
63 East 100th Street, New York, N. Y.
- Riveles, Julius
725 East 9th Street, New York, N. Y.
- Rocco, Emilio John
27 St. Edwards Street, Brooklyn, N. Y.
- Rosenberg, Solomon
3340 71st Street, Jackson Heights, N. Y.
- Rosenberg, William Nathaniel
838 West End Avenue, New York, N. Y.
- Rothleder, Paul
2869 West 27th Street, Brooklyn, N. Y.
- Rubin, Paul
630 Garden Street, Hoboken, N. J.
- Rubinstein, Jack
3225 Bainbridge Avenue, New York, N. Y.
- Sacco, John
2 Ocean Avenue, Deal, N. J.
- Saia, Joseph John
7 Court Street, Astoria, N. Y.
- Savitch, Milton
411 East 15th Street, New York, N. Y.
- Schloss, Max
1028 Simpson Street, New York, N. Y.
- Schneider, Nathan
283 Liberty Avenue, Brooklyn, N. Y.
- Schwartz, Abraham
1533 Minford Place, Brooklyn, N. Y.
- Schwartz, Isadore
69 Liberty Place, Weehawken, N. J.
- Schwartz, Max
624 Hopkinson Avenue, Brooklyn, N. Y.
- Schwartz, Sidney
256 Rivington Street, New York, N. Y.
- Seidel, Leo
1561 West 11th Street, Brooklyn, N. Y.
- Seppi, Dominick
319 3d Street, Fairview, N. J.
- Shefkowitz, Julius L.
1203 Westchester Avenue, New York, N. Y.
- Silberman, Joel
585 East 169th Street, New York, N. Y.
- Silverman, Hyman
424 Chester Street, Brooklyn, N. Y.
- Simon, Irving Edward
878 East 176th Street, New York, N. Y.

Simon, Moses Benjamin
137 Mansion Street, Poughkeepsie, N. Y.

Smolowitz, Julius
1575 Madison Avenue, New York, N. Y.

Snyder, Sol
45 Pinehurst Avenue, New York, N. Y.

Soldo, Americo
419 East 160th Street, New York, N. Y.

Starman, Arthur Abraham
1202 Miller Street, Utica, N. Y.

Stein, Irving
206 West 99th Street, New York, N. Y.

Stein, Solomon Charles
1674 East 13th Street, Brooklyn, N. Y.

Steir, Edward
504 Grand Street, New York, N. Y.

Strongin, Jack
1933 Union Street, Brooklyn, N. Y.

Tabachnick, William
1709 Bathgate Avenue, New York, N. Y.

Tannenbaum, Nathan
52 Bay 22d Street, Brooklyn, N. Y.

Tenebra, Mary
4057 97th Street, Corona, N. Y.

Tiersfeld, Nathan
14-16 East 108th Street, New York, N. Y.

Tomashoff, Sidney
4502 Sixteenth Avenue, Brooklyn, N. Y.

Tortora, Anthony
194 Cambridge Avenue, Jersey City, N. J.

Troisi, Mario Philip
2211 Second Avenue, New York, N. Y.

Uva, Nicholas
138 Sackman Street, Brooklyn, N. Y.

Valenti, Joseph
378 Fulton Avenue, Jersey City, N. J.

Van Beuren, John Horace
81 Chambers Street, Newburgh, N. Y.

Vellensky, Bernard
1437 40th Street, Brooklyn, N. Y.

Volpert, Bernard Leon
Newman P. O., Lake Placid, N. Y.

Wagreich, Arthur
1216 Hoe Avenue, New York, N. Y.

Waldinger, Sam Solomon
150 Keap Street, Brooklyn, N. Y.

Wallerick, Solomon
82 Columbia Street, New York, N. Y.

Wart, Arthur Henry
Sandy Creek, N. Y.

Washington, (Mrs.) Izetta L. A.
450 West 149th Street, New York, N. Y.

Weinberg, Louis Joseph
257 Columbus Avenue, New York, N. Y.

Weinstein, Morris
1546 East 172d Street, New York, N. Y.

Weiss, Harold
140-29 Cherry Avenue, Flushing, N. Y.

Weiss, Martin
1521 Madison Avenue, New York, N. Y.

Weiss, Samuel
2162 Valentine Avenue, New York, N. Y.

Welt, Morton
2056 74th Street, Brooklyn, N. Y.

Wexlin, Hyman
1219 Rosedale Avenue, New York, N. Y.

Wiesenfeld, Irving
957 Fox Street, New York, N. Y.

Williams, Clifford Albert
163 West 121st Street, New York, N. Y.

Winer, Abe Marvin
440 East 6th Street, New York, N. Y.

Wise, Fred
1726 Davidson Avenue, New York, N. Y.

Yachnowitz, Louis
120 Ludlow Street, New York, N. Y.

Zanca, Natalie Louis
1320 Brook Avenue, New York, N. Y.

Zanchelli, Gene Natalino
343 East 152d Street, New York, N. Y.

Zimand, Philip
2946 West 27th Street, Brooklyn, N. Y.

(236)

SECOND YEAR COLLEGE CLASS

Anopol, Annie
51 Hamilton Place, New York, N. Y.

Aponofsky, Anna
Broadway and Little Neck Road, Little Neck, N. Y.

Avignone, Carlo James
Massapequa, N. Y.

Badagliacca, Vincent Anthony
130 George Street, Brooklyn, N. Y.

Barbera, Anthony Joseph
549 Henry Street, Brooklyn, N. Y.

Bashevkin, Isaac
1012 Rutland Road, Brooklyn, N. Y.

Becker, Sidney Simon
2844 West 1st Street, Brooklyn, N. Y.

Belitz, Morris
501 West 175th Street, New York, N. Y.

Bellet, Louis
23-09 Astoria Avenue, Astoria, N. Y.

Berkowitz, Efrem Leslie
3242 Bedford Avenue, Brooklyn, N. Y.

Bittar, Dewey
5101 Sixth Avenue, Brooklyn, N. Y.

Blick, Richard
864 Troy Avenue, Brooklyn, N. Y.

Bologh, Sidney David
2358 84th Street, Brooklyn, N. Y.

Burton, Samuel
1471 St. Marks Avenue, Brooklyn, N. Y.

Busch, David Carlyle
1215 Nielson Avenue, Far Rockaway, N. Y.

Caso, Attilio Arthur
1209 Beach Avenue, New York, N. Y.

- Chadkin, Jason Abraham
1012 49th Street, Brooklyn, N. Y.
- Chu, Kang
10 Doyers Street, New York, N. Y.
- Cohen, Benjamin
510 West 123d Street, New York, N. Y.
- Colarusso, Thomas
22 Harrison Street, Mt. Vernon, N. Y.
- Coller, Gertrude Ethel
840 Castleton Avenue, West New Brighton, N. Y.
- Coller, Pearl
840 Castleton Avenue, West New Brighton, N. Y.
- Cosenza, Salvatore
216 Union Street, Brooklyn, N. Y.
- Cowan, John Wesley
244 Palmer Avenue, Mamaroneck, N. Y.
- Cozzolino, Sylvia Rafaela
564 East 191st Street, New York, N. Y.
- D'Arco George Daniel
85 North Elliott Place, Brooklyn, N. Y.
- DeAngelis, Dominick Francis
1160 63d Street, Brooklyn, N. Y.
- Diecidue, Ignatius
698 Flushing Avenue, Brooklyn, N. Y.
- Doctors, Albert
101-19 Vine Street, Corona, N. Y.
- Eilberg, Abraham
323 Ashford Street, Brooklyn, N. Y.
- Emrich, Ralph James
115 Maine Avenue, West New Brighton, N. Y.
- Erwich, Irving Harold
11 Newin Street, Corona, N. Y.
- Febbraio, Edmund
1877 Longfellow Avenue, New York, N. Y.
- Feinberg, Louis Julius
121 Dahill Road, Brooklyn, N. Y.
- Feitelberg, Morton
2101 Morris Avenue, New York, N. Y.
- Florentino, Anthony Louis
1280 Bergen Street, Brooklyn, N. Y.
- Foley, Vincent Aloysius
915 Park Avenue, Hoboken, N. J.
- Friedman, Oscar
2 Webster Avenue, Jersey City, N. J.
- Frisch, Bernard
789 West End Avenue, New York, N. Y.
- Fromm, Kate
1226 Sherman Avenue, New York, N. Y.
- Garzetta, Carmel
101 3d Street, New Dorp, N. Y.
- Gershkowitz, Louis
415 Powell Street, Brooklyn, N. Y.
- Glaser, Herman
442 Throop Avenue, Brooklyn, N. Y.
- Glaser, Jacob Julius
724 East 11th Street, New York, N. Y.
- Glick, Esther Henrietta Central Valley, N. Y.
- Glotzer, Isadore George
1908 Prospect Avenue, New York, N. Y.
- Gnaizda, Samuel Joseph
93 Schenck Avenue, Brooklyn, N. Y.
- Goldberg, David
95 Newport Street, Brooklyn, N. Y.
- Goldberg, Isidore George
2266 Church Avenue, Brooklyn, N. Y.
- Goodrich, Minnie
2070 Creston Avenue, New York, N. Y.
- Gordon, Jacob
269 Rochester Avenue, Brooklyn, N. Y.
- Granet, Morris
395 Powell Street, Brooklyn, N. Y.
- Greenfield, Benjamin
618 East 140th Street, New York, N. Y.
- Grenadir, Hyman David
2232 Douglass Street, Brooklyn, N. Y.
- Guattery, Peter Joseph
181 Wickham Avenue, Middletown, N. Y.
- Gulli, Antoinette Rita
7714 Sixteenth Avenue, Brooklyn, N. Y.
- Gumer, Max Simon
274 Ormond Street, Rochester, N. Y.
- Gussow, Max
911 Tiffany Street, New York, N. Y.
- Haber, Alexander Charles
1822 Mohegan Avenue, New York, N. Y.
- Handsman, Harry Rener
564 Linden Boulevard, Brooklyn, N. Y.
- Harris, Harry
83 Norfolk Street, New York, N. Y.
- Heiden, Eugenia
819 Trinity Avenue, New York, N. Y.
- Heller, John Andrew Paul
3 Oak Street, Poughkeepsie, N. Y.
- Henkin, Bernard
210 West 80th Street, New York, N. Y.
- Homnik, Jacob
645 East 6th Street, New York, N. Y.
- Hostomsky, Edward
106-18 27th Avenue, East Elmhurst, N. Y.
- Izenberg, Leo
601 East 23d Street, Paterson, N. J.
- Jacobs, Frank
429 Berry Street, Brooklyn, N. Y.
- Jones, Herbert Herman
11 5th Street, Weehawken, N. J.
- Kaplan, Jacob
989 Fox Street, New York, N. Y.
- Kasday, Julius
97-52 Corona Avenue, Corona, N. Y.
- Ketcham, George Vanderbilt
Gilbert Street, Northport, N. Y.
- Kirschenbaum, Samuel
416-18 East 10th Street, New York, N. Y.

- Koretsky, Fanny
359 West 45th Street, New York, N. Y.
- Kristal, Meyer
1682 Third Avenue, New York, N. Y.
- LeBlanc, Milton
78-15 Wayne Street, Middle Village, N. Y.
- Levy, Julius
2377 Creston Avenue, New York, N. Y.
- Levy, Sarah Ida
512 36th Street, Union City, N. J.
- Lubin, Sydney Wellsworth
1684 Dohill Road, Brooklyn, N. Y.
- MacLennan, David Grant
45 School Street, Manhasset, N. Y.
- Maduri, Elizabeth Virginia
164 Washington Park, Brooklyn, N. Y.
- Mahler, Henry
745 East 175th Street, New York, N. Y.
- Mavrogiannis, John George
885 East 181st Street, New York, N. Y.
- Mayhams, Joseph Mortimer
409 Orange Street, Georgetown, S. C.
- Messina, Anthony Pasquale
56-58 Macdougall Street, New York, N. Y.
- Milchman, David
167 Forbell Avenue, Brooklyn, N. Y.
- Mufson, Morris
523 Gregory Avenue, Passaic, N. J.
- Naliboff, Edward Murray
216 East 67th Street, New York, N. Y.
- Namiat, Morris
112 East Broadway, New York, N. Y.
- Nardoza, Joseph Salvatore
413 Madison Street, Hoboken, N. J.
- Nelson, R. Lewis
813 Center Street, Bowling Green, Ky.
- Newman, Percy North White Lake, N. Y.
- O'Connor, Harry Joseph
2540 Humphries Street, East Elmhurst, N. Y.
- Padnis, Nathan
730 Oakland Place, New York, N. Y.
- Paley, Irving Benedict
58 Howard Avenue, Brooklyn, N. Y.
- Parrini, Arthur Thomas
1312 Avenue H, Brooklyn, N. Y.
- Pavone, Egidio
31 Mt. Hope Place, New York, N. Y.
- Perelzweig, Samuel
1766 57th Street, Brooklyn, N. Y.
- Pfeffer, Alfred
1177 Nelson Avenue, New York, N. Y.
- Photoglou, George Michael
204 Manhattan Avenue, New York, N. Y.
- Pinck, Nathan
84 Henry Street, Passaic, N. J.
- Plotkin, Morris Louis
642 High Street, Newark, N. J.
- Pucillo, Nataleen Virginia
Tuxedo Park, N. Y.
- Rabinowitz, Ephroim
142 West 112th Street, New York, N. Y.
- Rand, George
667 West 161st Street, New York, N. Y.
- Reddick, Aubert Evans
409 Edgcombe Avenue, New York, N. Y.
- Richman, Alexander
29 Montiet Street, Brooklyn, N. Y.
- Rocchio, Philip Paul
108-22 48th Street, Corona, N. Y.
- Rosen, Abraham
2109 Daly Avenue, New York, N. Y.
- Rosenberg, Hyman Fred
1530 Sheridan Avenue, New York, N. Y.
- Rosenberg, Mandel
4 Hinman Street, Middle Village, N. Y.
- Roshkofsky, Jack
2077 East 12th Street, Brooklyn, N. Y.
- Rovira, Frank
24 West 112th Street, New York, N. Y.
- Ruggiero, William E.
49 Highland Terrace, Manhasset, N. Y.
- Safarik, Joseph John
80 Grand Street, Springfield, Mass.
- Saks, Joseph Herman
396 Schenck Avenue, Brooklyn, N. Y.
- Salmeri, Frances Mary
1041 67th Street, Brooklyn, N. Y.
- Schansinger, Benjamin
6819 Morton Avenue, Middle Village, N. Y.
- Schnaer, Abraham Isador
473 Pennsylvania Avenue, Brooklyn, N. Y.
- Schneider, Moses
1078 Stebbins Avenue, New York, N. Y.
- Schweig, Harry Karl
1200 Leland Avenue, New York, N. Y.
- Simon, Isidore
3165 Coney Island Avenue, Brooklyn, N. Y.
- Simon, Samuel
1535 Minford Place, New York, N. Y.
- Singer, Frank Philip
1766 Washington Avenue, New York, N. Y.
- Solkin, David
1595 Macombs Road, New York, N. Y.
- Stein, Abraham
864 Troy Avenue, Brooklyn, N. Y.
- Steinhauer, Bernard
1258 43d Street, Brooklyn, N. Y.
- Ticktin, George Beverley
618 Euclid Avenue, Toronto, Canada
- Trovato, Michael Alexander
32-49 100th Street, Corona, N. Y.
- Umlas, Isidore
3514 Mermaid Avenue, Brooklyn, N. Y.
- Unger, Bernard
522 West 161st Street, New York, N. Y.
- Villone, Anna Rose
161 West 4th Street, New York, N. Y.

- Wagner, Morris
329 East 56th Street, New York, N. Y.
- Wallach, Lawrence
535 West 135th Street, New York, N. Y.
- Waugh, Theodore
79-34 Sixty-seventh Road, Middle Village,
N. Y.
- Weiss, Harry
19 New Lots Avenue, Brooklyn, N. Y.
- Weiss, Stanley Daniel
30 Fairview Avenue, New York, N. Y.
- Werst, Francis Bernard
906 Cottage Place, Union City, N. J.
- Winokur, Emanuel
577 Bushwick Avenue, Brooklyn, N. Y.
- Wishner, Jacob
222 Marcy Avenue, Brooklyn, N. Y.
- Wishny, Gilbert
88 East 111th Street, New York, N. Y.
- Wohl, Benjamin
174 Eldridge Street, New York, N. Y.
- Woien, David
1255 Brook Avenue, New York, N. Y.
- Wolff, Max
706 Riverside Drive, New York, N. Y.
- Wunsh, Theodore Eugene
1329 Fifth Avenue, New York, N. Y.
- Yarrow, Harold
104-55 113th Street, Richmond Hill, N. Y.
- Yarvis, Samuel
490 Warwick Street, Brooklyn, N. Y.
- Youran, Morris
645 West 160th Street, New York, N. Y.
- Zanca, Anthony
1320 Brook Avenue, New York, N. Y.
- Zeichner, Harold
1145 Morrison Avenue, New York, N. Y.
- Zuckerman, Abraham
360 Beekman Avenue, New York, N. Y.
- Zykorie, Emil
142 Ross Street, Brooklyn, N. Y.
- (152)
- FIRST YEAR COLLEGE CLASS
- Adler, Nathan
201 Broad Street, Stapleton, N. Y.
- Anderson, Lloyd
9 Cumberland Avenue, Verona, N. J.
- Antman, Herbert Robert
513 Sheffield Avenue, Brooklyn, N. Y.
- Anselmo, Joseph
23-49 36th Street, Astoria, N. Y.
- Armentano, Joseph Lawrence
3558 71st Street, Jackson Heights, N. Y.
- Baker, Samuel David
53 Victory Boulevard, Tompkinsville, N. Y.
- Baumgarten, Harry Meyer
1513 39th Street, Brooklyn, N. Y.
- Bazilian, Jacob
315 Idaho Street, Farrell, Pa.
- Beller, Max Emanuel
513 East 79th Street, New York, N. Y.
- Bennett, Frank
563 South Greenwich Avenue, Greenwich,
Conn.
- Bernstein, Moses
766 Ninth Avenue, New York, N. Y.
- Bloom, David Alfred
58 Fairmount Street, Norwich, Conn.
- Bologh, Joseph
862 Kelly Street, New York, N. Y.
- Burano, John Ernest
403 East 100th Street, New York, N. Y.
- Byron, Grace Marie
224-23 Ninety-second Avenue, Queens Village,
N. Y.
- Casey, Charles
Washingtonville, N. Y.
- Catanese, James
39 Olivia Street, Port Chester, N. Y.
- Cerciello, Louis Joseph
22 Westervelt Place, Jersey City, N. J.
- Cerulli, William
75 Withers Street, Brooklyn, N. Y.
- Chu, James Hing
10 Doyers Street, New York, N. Y.
- Cohen, Hymen
915 Elsmere Place, New York, N. Y.
- Cohen, Joseph
995 East 167th Street, New York, N. Y.
- Cooper, Morris Sredna
1069 Morris Park Avenue, New York, N. Y.
- Corrado, Anthony Ludwig J.
66 Forty-fifth Avenue, Corona, N. Y.
- Curtis, Edward Hatch, Jr.
20 Newell Road, Bristol, Conn.
- Davidson, David
571 South Boulevard, New York, N. Y.
- Davis, David
1771 57th Street, Brooklyn, N. Y.
- Dobruskin, George
1548 Bryant Avenue, New York, N. Y.
- D'Onofrio, Rocco Elias
145 Hickock Avenue, Syracuse, N. Y.
- Doyle, Stephen Joseph
8 West Park Place, Great Neck, N. Y.
- Drobner, Harry
219 Henry Street, New York, N. Y.
- Dulchin, Eli
225 West 12th Street, New York, N. Y.
- Edghill, Kenneth
68 West 139th Street, New York, N. Y.
- Englander, Milton
776 East 161st Street, New York, N. Y.
- Feldman, Philip Jesse
328 South Ninth Avenue, Mt. Vernon, N. Y.
- Fish, Elias
425 Keap Street, Brooklyn, N. Y.
- Fisher, Arthur Samuel
701 Croton Park North, New York, N. Y.

- Fleisch, Wolf
2136 Clinton Avenue, New York, N. Y.
- Fleischmann, Max
928 56th Street, Brooklyn, N. Y.
- Freedman, Morris Aaron
704 LeRoy Street, Watertown, N. Y.
- Furman, Marcus
1438 42d Street, Brooklyn, N. Y.
- Gammer, Irving
1876 Clinton Avenue, New York, N. Y.
- Gettleman, Carl
825 East 170th Street, New York, N. Y.
- Gevirtz, Hyman Julius
178 Amboy Street, Brooklyn, N. Y.
- Gold, Alex 88 Elm Street, Rocky Hill, Conn.
- Goldstein, Benjamin
871 Longwood Avenue, New York, N. Y.
- Goldstein, Maurice
120 Stockton Street, Hightstown, N. J.
- Gomez, Augusto
110 West 113th Street, New York, N. Y.
- Goodkin, Harold Gabriel
1059 Tiffany Street, New York, N. Y.
- Goretzky, Israel
808 Lafayette Avenue, Brooklyn, N. Y.
- Grassi, Julius Caesar
67 Mill Street, Newburgh, N. Y.
- Green, William
1017 Intervale Avenue, New York, N. Y.
- Greenbaum, Jack
1425 Wythe Place, New York, N. Y.
- Guberman, Louis
1095 Boston Road, New York, N. Y.
- Gzibick, Samuel
3107 84th Street, Jackson Heights, N. Y.
- Hill, Harold Edward
258 Union Avenue, Mt. Vernon, N. Y.
- Homer, Max Jack
171 Clinton Street, New York, N. Y.
- Horowitz, David
220 Westervelt Avenue, New Brighton, N. Y.
- Jermyn, Edward
116 Clay Avenue, Scranton, Pa.
- Jerome, Peter Ralph
10-19 47th Road, Long Island City, N. Y.
- Kagle, Arthur
598 West 178th Street, New York, N. Y.
- Kahner, Paul
1339 Fteley Avenue, New York, N. Y.
- Kaplan, Leo
946 East 181st Street, New York, N. Y.
- Katz, Philip 18 Van Cliff, Corona, N. Y.
- Kessler, Nathan
781 Fairmount Place, New York, N. Y.
- Kestenbaum, Adolph
287 Henry Street, New York, N. Y.
- Kluge, Solomon Joseph
24 Bennett Avenue, New York, N. Y.
- Klugman, Harry
953 Tiffany Street, New York, N. Y.
- Koblin, David Charles
151 High Avenue, Nyack, N. Y.
- Koller, John Andrew
340 East 85th Street, New York, N. Y.
- LaRocca, Frank
139 East 4th Street, New York, N. Y.
- Lazar, Nathan
474 Jerome Street, Brooklyn, N. Y.
- Lefkowitz, Leo
2707 Barnes Avenue, New York, N. Y.
- Lettieri, Nunzi Francis
162 Schenectady Avenue, Brooklyn, N. Y.
- Levine, Sidney Gerald New Egypt, N. J.
- Levy, Morris
834 45th Street, Brooklyn, N. Y.
- McCaffrey, Edward Francis
56 Paris Road, New Hartford, N. Y.
- Maggio, Michael
14 First Avenue, New York, N. Y.
- Malkin, Martin
535 West 162d Street, New York, N. Y.
- Maller, Julius
704 Howard Avenue, Brooklyn, N. Y.
- Marchese, Justin Robert
3461 White Plains Road, New York, N. Y.
- Marcus, Fred
1389 Bronx River Avenue, New York, N. Y.
- Mariani, Yolanda
3350 White Plains Avenue, New York, N. Y.
- Marturano, Philip Samuel
856 West Domenick Street, Rome, N. Y.
- Mazlish, Abraham
137a DeKalb Avenue, Jersey City, N. J.
- Messina, Joseph
1314 Second Avenue, New York, N. Y.
- Milkowitz, Morris
195 South 4th Street, Brooklyn, N. Y.
- Miller, Alfred
327 Victory Boulevard, Staten Island, N. Y.
- Mintzer, Nathan
130-01 109th Avenue, Richmond Hill, N. Y.
- Mitchell, Harry
112 West 76th Street, New York, N. Y.
- Mitchell, Walter Lawrence
34 Ashton Street, Charleston, S. C.
- Moskoff, Joseph William
277 West 117th Street, New York, N. Y.
- Murray, William Augustus
25 High Street, Cold Spring, N. Y.
- Ostrofsky, Isidore
323 Alabama Avenue, Brooklyn, N. Y.
- Paonessa, V. William
7 Van Ranst Place, Mamaroneck, N. Y.

- Petak, Michael
650 47th Street, Brooklyn, N. Y.
- Pink, Abraham
252 Highland Avenue, Passaic, N. J.
- Pitocchi, Caroline Ellen
1316 Bay Ridge Parkway, Brooklyn, N. Y.
- Pollack, Harold
1640 University Avenue, New York, N. Y.
- Price, Sybil Louise
2484 Seventh Avenue, New York, N. Y.
- Rabiner, Abraham
127 South Mill Street, Liberty, N. Y.
- Raich, George
83-46 118th Street, Kew Gardens, N. Y.
- Raskin, Nathan
1523 Washington Avenue, New York, N. Y.
- Rauch, Irving Herbert
46-48 Avenue B, New York, N. Y.
- Reich, Leo Lewis
2005 Vyse Avenue, New York, N. Y.
- Reid, Norman Frederick
436 East 69th Street, New York, N. Y.
- Ricciardi, Michael Raymond
120 Lake Street, Jersey City, N. J.
- Rose, Herbert Hyman
222 Main Street, Highland Falls, N. Y.
- Rosenblatt, Raphael
1785 Prospect Avenue, New York, N. Y.
- Rosenfeld, Julius Lawrence
178 Hooper Street, Brooklyn, N. Y.
- Rothaus, Rita
369 East 169th Street, New York, N. Y.
- Santoriello, Nicholas Michael
184 Richardson Street, Brooklyn, N. Y.
- Sarner, Samuel
92 Ridge Street, New York, N. Y.
- Schneller, Michael
408 East 158th Street, New York, N. Y.
- Scholefield, Lewis James
23 Ralph Street, Beacon, N. Y.
- Selvin, Murray Louis
36 Englewood Avenue, West Englewood, N. J.
- Shahon, Alexander
1012 Voorhies Avenue, Brooklyn, N. Y.
- Siegel, Abraham Jacob
512 East Taylor Street, Syracuse, N. Y.
- Silverman, Sidney
249 Barrett Street, Brooklyn, N. Y.
- Simon, Seymour Charles
12 Cooper Square, New York, N. Y.
- Spanuello, Charles
2887 Harrington Avenue, New York, N. Y.
- Spiegel, Martin
79 Broadway, Kingston, N. Y.
- Stamatov, (Mrs.) Stefana Mednikarova
2899 Kingsbridge Terrace, New York, N. Y.
- Steele, Kent Brown
Pierrepont Manor, N. Y.
- Stillman, David
318 East 8th Street, New York, N. Y.
- Strassfeld, Solomon
96 Willett Street, New York, N. Y.
- Stuller, David Davis
13 Grove Street, South Norwalk, Conn.
- Taylor, Harold Louis
62 Line Street, Charleston, S. C.
- Tropia, Joseph
245 East 39th Street, New York, N. Y.
- Truyol, Josefina
Calimano Street, Guayama, Porto Rico
- Truyol, Rafaela
Calimano Street, Guayama, Porto Rico
- Valenti, Anthony Sauro
134 Grove Street, Brooklyn, N. Y.
- Vernava, Anthony
134 White Street, New York, N. Y.
- Vinci, Thomas Lawrence
Highland Road, East Port Chester, Conn.
- Wahls, Henry Affel
8843 186th Street, Hollis, N. Y.
- Wait, Gretchen
216 Grand Street, Newburgh, N. Y.
- Walter, Henry Carl
8300 Talbot Street, Kew Gardens, N. Y.
- Weinstein, Louis
62 East 7th Street, New York, N. Y.
- Weissman, Theodore
227 East Chester Street, Long Beach, N. Y.
- Wexler, Jacob
431 Strafford Avenue, Syracuse, N. Y.
- Whitney, Edward Harold
172 Lander Street, Newburgh, N. Y.
- Wolfe, Solomon
295 South 2d Street, Brooklyn, N. Y.
- Wolinsky, William Jack
57 Suffolk Street, New York, N. Y.
- Wollner, Julius
60 West 58th Street, New York, N. Y.
- Yawata, Richard Ichitaro
1505 Kewalo Street, Honolulu, Hawaii
- Zauderer, Isidor
501 West 124th Street, New York, N. Y.
- Zito, Donato Joseph
262 Union Avenue, New Rochelle, N. Y.
- (147)

ACADEMIC CALENDAR

1931

- June 8-Aug. 8. Summer Laboratory Courses.
Sept. 2-4. Registration for first year candidates.
8-11. Supplementary Examinations.
16-17. Registration for second, third, and fourth year candidates.
21. Monday, One Hundred and Second Session begins. Second, Third and Fourth Year Classes assemble 9 a. m.
22. Tuesday, First Year Classes assemble 9 a. m.
Oct. 5. Monday, Evening Courses start.
Nov. 3. Tuesday, Election Day, Holiday.
26. Thursday, to November 28, Saturday, inclusive. Thanksgiving Holidays.
Dec. 21. Monday, to

1932

- Jan. 2. Saturday, inclusive, Christmas Holidays.
4. Monday, Sessions resumed.
18-23. Mid-Year Examinations.
18. Monday, Second Semester, Evening Courses start.
Feb. 12. Friday, Lincoln's Birthday, Holiday.
22. Monday, Washington's Birthday, Holiday.
March 25-26. Spring Holiday.
Apr. 4. Monday, All classes. Last day for applying for final examinations with payment of fee.
May 6. Friday, Evening Courses close.
9-16. Final Examinations, First, Second, and Third year College and University Classes.
16-18. Final Examinations, Senior University Class.
25. Wednesday, First and Second Year Exercises (Alumni Day).
26. Thursday, College Commencement.
31. Tuesday, University Commencement.

SCHEDULE OF EXAMINATIONS

Supplementary Examinations

FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1931

- Sept. 8. Tuesday, 9-12, *Phr. 1-2*, Pharmacy.
9. Wednesday, 9-12, *Chm. 3-4*, Chemistry.
Wednesday, 2-5, *Chm. 1-2*, Physics.

- Sept. 10. Thursday, 9-12, *M.M.* 1-2, Botany.
 Thursday, 9-12, *M.M.* 5-6, Posology.
 Thursday, 2-5, *Eng.* 1-2, English.
 Thursday, 2-5, *Hist.* 3-4, American government.

SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 8. Tuesday, 9-12, *Phr.* 51-52, Theoretical pharmacy.
 Tuesday, 2-5, *Phr.* 61-62, Commercial pharmacy.
 9. Wednesday, 9-12, *Chm.* 55-56, Inorganic chemistry.
 Wednesday, 2-5, *Chm.* 51-52, Physics.
 10. Thursday, 9-12, *M.M.* 57-58, Physiology.
 Thursday, 9-12, *M.M.* 59-60, Microbiology.
 Thursday, 2-5, *Ger.* 51-52, German.

THIRD YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 8. Tuesday, 9-12, *Phr.* 101-102, Theoretical pharmacy.
 Tuesday, 2-5, *Phr.* 107-108, Dispensing pharmacy.
 Tuesday, 2-5, *Math.* 101-102, Mathematics.
 9. Wednesday, 9-12, *Chm.* 103-104, Organic chemistry.
 Wednesday, 2-5, *Chm.* 101-102, Theories of chemistry.
 Wednesday, 2-5, *Chm.* 107-108, Newer remedies.
 10. Thursday, 9-12, *M.M.* 101-102, Materia medica.
 Thursday, 2-5, *M.M.* 103-104, Toxicology.
 Thursday, 2-5, *M.M.* 109-110, Pharmacal sundries.
 11. Friday, 9-12, *Phr.* 109-110, Jurisprudence and business pharmacy.

FOURTH YEAR UNIVERSITY CLASS

- Sept. 8. Tuesday, 2-5, *Phr.* 151-152, Advanced pharmacy.
 9. Wednesday, 9-12, *Chm.* 153-154, Food analysis and toxicology.
 Wednesday, 2-5, *Chm.* 151-152, Inorganic quantitative analysis.
 Wednesday, 2-5, *Chm.* 155-156, Biological chemistry.
 10. Thursday, 9-12, *M.M.* 155-156, Physiology.

Mid-Year Examinations and Tests

1932

- Jan. 18-23. A schedule of these examinations and tests will be posted on the bulletin boards. Students not in residence should consult the Registrar for information regarding them.

Final Examinations

FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1932

- May 10. Tuesday, 9-12, *M.M.* 1-2, Botany.
 Tuesday, 9-12, *M.M.* 5-6, Posology.

- May 10 Tuesday, 9-12, *M.M.* 7-8, Posology.
 Tuesday, 2-5, *Chm.* 3-4, Inorganic chemistry.
12. Thursday, 9-12, *Chm.* 1-2, Physics.
 Thursday, 2-5, *Phr.* 1-2, Pharmacy.
14. Saturday, 9-12, *Eng.* 1-2, English.
 Saturday, 9-12, *Hist.* 3-4, American government.

SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- May 9. Monday, 9-12, *Phr.* 51-52, Theoretical pharmacy.
 Monday, 2-5, *M.M.* 57-58, Physiology.
 Monday, 2-5, *M.M.* 59-60, Microbiology.
11. Wednesday, 9-12, *Chm.* 55-56, Inorganic chemistry.
 Wednesday, 2-5, *Chm.* 51-52, Physics.
12. Thursday, 9-12, *Ger.* 51-52, German.
13. Friday, 9-12, *Phr.* 61-62, Commercial pharmacy.
 Friday, 2-5, *Phr.* 53-54, Pharmaceutical Latin.

THIRD YEAR COLLEGE AND UNIVERSITY CLASSES

- May 9. Monday, 9-12, *Chm.* 103-104, Organic chemistry.
 Monday, 2-5, *Chm.* 107-108, Newer remedies.
10. Tuesday, 9-12, *Chm.* 101-102, Theories of chemistry.
 Tuesday, 2-5, *Math.* 101-102, Mathematics.
11. Wednesday, 9-12, *Phr.* 101-102, Theoretical pharmacy.
 Wednesday, 2-5, *Phr.* 109-110, Jurisprudence and business pharmacy.
13. Friday, 9-12, *M.M.* 101-102, Materia medica.
 Friday, 2-5, *M.M.* 103-104, Toxicology.
 Friday, 2-5, *M.M.* 109-110, Pharmacal sundries.
16. Monday, 9-12, *Phr.* 107-108, Dispensing pharmacy.

FOURTH YEAR UNIVERSITY CLASS

- May 16. Monday, 9-12, *Phr.* 151-152, Pharmacy.
 Monday, 1-4, *Chm.* 151-152, Inorganic quantitative analysis.
17. Tuesday, 9-12, *Chm.* 153-154, Food analysis and toxicology.
18. Wednesday, 9-5, *Chm.* 155-156, Biological chemistry.
 Wednesday, 9-5, *M.M.* 155-156, Physiology.

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Columbia University

BULLETIN OF INFORMATION

Thirty-second Series, No. 44

July 30, 1932

ANNOUNCEMENT OF THE

COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1932-1933



113-119 WEST 68TH STREET
NEW YORK

Columbia University Bulletin of Information

Thirty-second Series, No. 44

July 30, 1932

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1. Reports of the President and Treasurer to the Trustees.
2. The Catalogue Number, the Directory Number and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C. U. P.—15,000—1932

For special or more detailed information than is given in this Announcement, applicants are requested to address the Registrar of the College, 113 West 68th Street. His office hours are as follows: From September 1, 1932 to June 1, 1933, daily except Saturdays, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a. m. to 4 p. m.; Saturdays, 9:30 a. m. to 12 m.



COLLEGE OF PHARMACY OF THE CITY OF NEW YORK
113-119 WEST SIXTY-EIGHTH STREET

Columbia University

in the City of New York

ANNOUNCEMENT OF THE

COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1932-1933



113-119 WEST 68TH STREET
NEW YORK

This college reserves the right to make such changes in the curriculum, schedule, calendar, and regulations appearing in this Announcement, as circumstances may require.

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1932

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
Jan.	..	3	4	5	6	7	1	2	May	1	2	3	4	5	6	7	Sept.	4	5	6	7	8	9	10
	10	11	12	13	14	15	16			8	9	10	11	12	13	14		11	12	13	14	15	16	17
	17	18	19	20	21	22	23			15	16	17	18	19	20	21		18	19	20	21	22	23	24
	24	25	26	27	28	29	30			22	23	24	25	26	27	28		25	26	27	28	29	30	..
	31	..	..	..	..	..	..			29	30	31	..	..	..	..		..	..	..	..	..	..	..
Feb.	..	1	2	3	4	5	6		June	5	6	7	8	9	10	11	Oct.	2	3	4	5	6	7	8
	7	8	9	10	11	12	13			12	13	14	15	16	17	18		9	10	11	12	13	14	15
	14	15	16	17	18	19	20			19	20	21	22	23	24	25		16	17	18	19	20	21	22
	21	22	23	24	25	26	27			26	27	28	29	30	..	..		23	24	25	26	27	28	29
	28	29	..	..	..	..	..			..	..	..	..	..	..	..		30	31	..	..	..	..	..
March	..	..	1	2	3	4	5		July	3	4	5	6	7	8	9	Nov.	..	..	1	2	3	4	5
	6	7	8	9	10	11	12			10	11	12	13	14	15	16		6	7	8	9	10	11	12
	13	14	15	16	17	18	19			17	18	19	20	21	22	23		13	14	15	16	17	18	19
	20	21	22	23	24	25	26			24	25	26	27	28	29	30		20	21	22	23	24	25	26
	27	28	29	30	31	..	..			31	..	..	..	..	..	..		27	28	29	30	..	..	..
April	..	3	4	5	6	7	8	9	Aug.	..	1	2	3	4	5	6	Dec.	..	..	..	1	2	3	4
	10	11	12	13	14	15	16			7	8	9	10	11	12	13		4	5	6	7	8	9	10
	17	18	19	20	21	22	23			14	15	16	17	18	19	20		11	12	13	14	15	16	17
	24	25	26	27	28	29	30			21	22	23	24	25	26	27		18	19	20	21	22	23	24
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1933

Jan.	1	2	3	4	5	6	7	May	..	1	2	3	4	5	6	Sept.	..	..	..	..	1	2	3	4
	8	9	10	11	12	13	14			7	8	9	10	11	12	13		3	4	5	6	7	8	9
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	22	23	24	25	26	27	28			21	22	23	24	25	26	27		17	18	19	20	21	22	23
	29	30	31	..	..	..	..			28	29	30	31	..	..	..		24	25	26	27	28	29	30
Feb.	..	..	1	2	3	4		June	..	..	..	1	2	3	4	Oct.	1	2	3	4	5	6	7	8
	5	6	7	8	9	10	11			4	5	6	7	8	9	10		8	9	10	11	12	13	14
	12	13	14	15	16	17	18			11	12	13	14	15	16	17		15	16	17	18	19	20	21
	19	20	21	22	23	24	25			18	19	20	21	22	23	24		22	23	24	25	26	27	28
	26	27	28	..	..	..	..			25	26	27	28	29	30	..		29	30	31	..	..	..	..
March	..	..	1	2	3	4		July	..	..	..	..	..	..	1	Oct.	..	..	..	1	2	3	4	5
	5	6	7	8	9	10	11			2	3	4	5	6	7	8	Nov.	5	6	7	8	9	10	11
	12	13	14	15	16	17	18			9	10	11	12	13	14	15		12	13	14	15	16	17	18
	19	20	21	22	23	24	25			16	17	18	19	20	21	22		19	20	21	22	23	24	25
	26	27	28	29	30	31	..			23	24	25	26	27	28	29		26	27	28	29	30	..	..
	..	..	..	..	..	..	..			30	31	..	..	..	..	..		..	..	..	..	..	..	..
April	..	..	..	..	..	..	1	Aug.	..	..	1	2	3	4	5	Dec.	..	..	..	..	1	2	3	4
	2	3	4	5	6	7	8			6	7	8	9	10	11	12		3	4	5	6	7	8	9
	9	10	11	12	13	14	15			13	14	15	16	17	18	19		10	11	12	13	14	15	16
	16	17	18	19	20	21	22			20	21	22	23	24	25	26		17	18	19	20	21	22	23
	23	24	25	26	27	28	29			27	28	29	30	31	..	..		24	25	26	27	28	29	30
	30	..	..	..	..	..	..			..	..	..	..	..	..	..		31	..	..	..	..	..	..

1934

Jan.	..	1	2	3	4	5	6	May	6	..	1	2	3	4	5	Sept.	..	..	..	..	1	2	3	4
	7	8	9	10	11	12	13			7	8	9	10	11	12			2	3	4	5	6	7	8
	14	15	16	17	18	19	20			13	14	15	16	17	18	19		9	10	11	12	13	14	15
	21	22	23	24	25	26	27			20	21	22	23	24	25	26		16	17	18	19	20	21	22
	28	29	30	31	..	..	..			27	28	29	30	31	..	..		23	24	25	26	27	28	29
Feb.	..	..	..	..	..	..	..	June	..	..	..	..	..	..	1	Oct.	30	..	..	..	..	..	..	..
	4	5	6	7	8	9	10			3	4	5	6	7	8		..	1	2	3	4	5	6	7
	11	12	13	14	15	16	17			10	11	12	13	14	15	16		7	8	9	10	11	12	13
	18	19	20	21	22	23	24			17	18	19	20	21	22	23		14	15	16	17	18	19	20
	25	26	27	28	..	..	..			24	25	26	27	28	29	30		21	22	23	24	25	26	27
March	..	..	..	..	..	..	1	July	1	2	3	4	5	6	7	Nov.	..	..	..	1	2	3	4	5
	4	5	6	7	8	9	10			8	9	10	11	12	13		..	4	5	6	7	8	9	10
	11	12	13	14	15	16	17			15	16	17	18	19	20	21		11	12	13	14	15	16	17
	18	19	20	21	22	23	24			22	23	24	25	26	27	28		18	19	20	21	22	23	24
	25	26	27	28	29	30	31			29	30	31	..	..	..	..		25	26	27	28	29	30	..
	..	..	..	..	..	..	..			..	..	..	..	..	..	..		..	..	..	..	..	..	..
April	1	2	3	4	5	6	7	Aug.	..	..	1	2	3	4		Dec.	..	..	..	..	1	2	3	4
	8	9	10	11	12	13	14			5	6	7	8	9	10			2	3	4	5	6	7	8
	15	16	17	18	19	20	21			12	13	14	15	16	17	18		9	10	11	12	13	14	15
	22	23	24	25	26	27	28			19	20	21	22	23	24	25		16	17	18	19	20	21	22
	29	30	..	..	..	..	..			26	27	28	29	30	31	..		23	24	25	26	27	28	29
	..	..	..	..	..	..	..			..	..	..	..	..	..	..		30	31	..	..	..	..	..

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ALEITA HOPPING, Ph.D.....	<i>Assistant Professor of Physiology</i>

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JOSEPH JACKSON, Ph.G., B.S.....	<i>Instructor in Chemistry</i>

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.....	<i>Lecturer in History</i>

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CLARENCE E. LOVEJOY, A.B.....	<i>Alumni Secretary</i>

COLUMBIA UNIVERSITY

Columbia University was founded in 1754 as King's College by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the College of Physicians and Surgeons with courses leading to the degrees of Doctor of Medicine and Master of Science; the School of Engineering, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degree of Bachelor of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degree of Doctor of Dental Surgery; the School of Library Service; with courses leading to the degrees of Bachelor of Science and Master of Science, Seth Low Junior College offering two and three years of collegiate work in preparation for admission to professional schools or to more advanced work in liberal arts and sciences in Columbia University; the non-professional Graduate Faculties of Political Science, Philosophy, and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy.

In addition to these schools and faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; the College of Pharmacy of the City of New York, with courses leading to the degrees of Bachelor of Science and Doctor of Pharmacy; St. Stephen's College, Annandale, New York, an undergraduate college for men with courses leading to the degree of Bachelor of Arts; and the Union Theological Seminary, whose faculty conducts certain University work leading to the degree of Master of Arts.

The University maintains three sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree. Home Study courses are also offered to persons who are unable to take work in residence.

ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma, is enrolled as a matriculated student of the University. Acceptance of a candidate is based on grounds of character and health as well as on fulfillment of academic requirements. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the Announcement of each school will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar immediately.

The Dean or Director of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The Announcements of each college or school, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

The Announcement of each school contains a schedule of fees and expenses for the courses in that school.

LIBRARY

The Library of the University contains about 1,305,000 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special

libraries in connection with their lecture rooms and laboratories. The Avery Architectural Library, the law library, the Ella Weed Library of Barnard College, Teachers College library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

PUBLIC LIBRARIES

Students may use any of the public libraries of Greater New York. The central library building of the New York Public Library at Fifth Avenue and 42d Street, houses one of the great reference libraries of the country, containing nearly 2,000,000 volumes and including much material not found in the University Library. Books in the reference department of that library may be used only within the building. Because of crowded conditions students are expected to do their work in the University libraries. However, if material needed by a graduate student is not in the University Library, he should take a card from his departmental librarian to the Public Library. Books in the central circulation branch (42d Street entrance) and in other branches may be borrowed for home use by students who obtain a Public Library card. A sub-branch of the Public Library is maintained in Room 108A of the Columbia University Library. Other branches in the vicinity of the University are: West 115th Street, near Seventh Avenue; West 100th Street, near Amsterdam Avenue; and George Bruce Branch, 518 West 125th Street.

RESIDENCE HALLS

The Residence Halls provide easy access to libraries and laboratories, comfortable accommodations in an environment conducive to academic work, and serve as a center for campus life.

There are four Residence Halls for men on South Quadrangle: Furnald with 282 rooms Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Quadrangle, with accommodations of room and board for 360 students in the graduate and professional schools is a Residence Hall for women.

All the University Residence Halls, for both men and women, are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the Halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

INTERNATIONAL HOUSE

International House, 500 Riverside Drive, the home of the Inter-Collegiate Cosmopolitan Club, is maintained for men and women students from foreign lands and a limited number of American students. It accommodates 175 women and 325 men. It contains attractive restaurants and social rooms. Inquiries should be addressed to the Committee on Admissions, International House, 500 Riverside Drive.

THE RESIDENCE BUREAU

Columbia University maintains a Residence Bureau to protect the students' interests and to assist students in finding the best accommodations obtainable in the University neighborhood. There is no charge made for this service. The Bureau will furnish upon request addresses of rooms which have been inspected. The University is in no way responsible for any private lodging house. Students desiring information regarding rooms outside of University Halls should address the Residence Bureau, Room M, Earl Hall, Columbia University.

KING'S CROWN HOTEL

The King's Crown Hotel, located at 420 West 116th Street in close proximity to the University, provides accommodations at reasonable rates, available for relatives and guests of members of the University community.

DINING FACILITIES

The University maintains a dining room for women students in Johnson Hall and a dining room and a grillroom for all men students in John Jay Hall. In addition, the University maintains the following dining rooms (cafeteria service): the Commons (men and women), University Hall; Barnard Hall Lunch Room (women), Barnard Hall; Teachers College Cafeteria (men and women), Grace Dodge Hall, 121st Street. All these dining rooms are under expert supervision and furnish wholesome food at moderate rates.

The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the Campus entrance, are the offices of the Director of Earl Hall (Men's Residence Halls Office); the Residence Bureau; the Secretary of Appointments; and the Meeting Room. On the upper floor are the offices of the Chaplain of the University and his staff, and also an auditorium seating 400 people which is used by musical and dramatic organizations. The lower floor entrance from Broadway is occupied by the offices of the University Medical Officer.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the University Medical Officer. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.

MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists, and nursing care, will receive such information upon applying at the office of the University Medical Officer.

THE COLLEGE OF PHARMACY

IMPORTANT ANNOUNCEMENT

STATE BOARD REQUIREMENTS

It has been agreed among all the important state boards of pharmacy in the United States, with the exception of New York, that the degree of Graduate in Pharmacy, awarded for a course of less than four years will not be accepted from graduates matriculating after January 1, 1932. In certain of the states there is an additional demand that the college instruction be spread over five days of the week. It follows that students matriculating in the pharmacy schools of this state must pursue some other course than the Ph.G. course of three years, if they wish their diplomas to be recognized in other states. Our University Course of four years leading to the degree of Bachelor of Science in Pharmacy (see page 17) is more than equivalent to the four-year course required by other states. This course provides 3808 hours of instruction during four years of 32 weeks each, the work occupying five days of each week.

GENERAL STATEMENT

The one hundred and third annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 19, 1932.

THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the city. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus, and Amsterdam Avenue lines connect with nearly all surface lines in the city. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College building was erected in 1894, after a study of the principal buildings of the kind in this country and abroad. So great has been the increase in the applications for admission that it was found necessary in 1923 to provide greater accommodations in the form of an additional connecting building.

In its planning, two principal objects were kept in view: first, provision for a large increase in the membership of the first and second year classes; second, greatly increased and improved facilities for the work of the higher classes. In connection with the latter, extensive provision has been made for research work, by both Faculty and special students. Our library has also been greatly improved, the entire lower floor of the new building having been reserved for its accommodation.

THE LIBRARY

The library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for

the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy.

Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the general Library of Columbia University on Morningside Heights, libraries of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great library of the Surgeon-General's office at Washington.

The library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library copies of the textbooks in use by the College may not be removed from the library.

INFORMATION BUREAU

The information bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the Bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service:

1. Telephone inquiries will be answered without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the information bureau, Trafalgar 7-1733, and will receive information immediately if it is accessible.

2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.

3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.

4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical, or botanical periodicals will be prepared for those desiring to pay for such service.

5. As in the past, all visitors to the library, desiring to do their own research work, will be given courteous attention.

EMPLOYMENT FOR STUDENTS

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

Any student wishing to secure employment should, upon entering the College, communicate with the Registrar.

Within easy reach of the College are some three thousand pharmacies, where students who have had some experience in pharmacy may obtain employment with salary sufficient to pay the whole or a large part of their expenses while attending College.

APPLICATION FOR ADMISSION

Every candidate for admission to the College of Pharmacy is required to file with the Registrar of the College a personal application and a transcript of his high school record, blank forms for which can be had upon application. He is also required to file an approval of his application for a pharmacy student qualifying certificate *before he can be accepted*, and he must secure the apprentice license before his matriculation can be considered complete.

NEW YORK STATE QUALIFYING CERTIFICATE

To be entitled to a pharmacy student qualifying certificate, the applicant must be at least seventeen years of age, and must have been graduated from an accredited four-year high school course, or have covered courses acceptable to the Department of Education as a full equivalent thereof. A high school or other secondary school course of study will not be considered acceptable unless the applicant has received the school diploma, and unless his or her record includes:

English, four years.

Science, two years.

Mathematics, two years.

Foreign language, two years.

History, one year.

Physiology, one-half year (unless the two years of science include biology or general science).

Civics, one-half year.

Sufficient electives to make up a full four-year course aggregating 15 units.

The fulfillment of these requirements must be officially guaranteed by a qualifying certificate issued by the New York State Department of Education. If the applicant is entitled to receive the certificate, he will be so notified by letter; which letter should be presented to the Registrar of the College of Pharmacy. Blank forms for making application for the certificate may be secured either from the Registrar's office or from the Department of Education at Albany.

APPRENTICE LICENSE

The apprentice license should be applied for when the candidate commences his experience in a pharmacy or drug store. Those who have had no experience before entering the pharmacy school, or whose experience has been in a drug store or pharmacy outside of New York State, will make application for their licenses through the school during the first week of the course, the Registrar acting as "preceptor." Blank forms for making application for the apprentice license may be secured either from the Registrar's office or from the Board of Pharmacy at Albany, N. Y.

HEALTH CERTIFICATE

All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. Appropriate blanks are furnished by the Registrar of the College.

COURSES OFFERED

Two regular courses of study are offered, known respectively as the College Course and the University Course, and three evening courses in the Departments of Materia Medica, Pharmacy, and Chemistry.

THE COLLEGE COURSE

This course now comprises three full years of professional work, and is designed to fit the graduate for meeting the educational requirements of the State Board. Attention is directed to the first paragraph on page 14, under the heading, "State Board Requirements." The fundamental idea of this increase in time is generally accepted as being that of improving the quality of the work done, rather than of providing a large amount of additional work, this improvement applying particularly to the practical features of the course. The precise object of a course leading to the degree of Graduate in Pharmacy being to prepare such graduates for meeting the conditions of service in a retail pharmacy, the greater portion of the increased time has been assigned to the Department of Pharmacy, and to those features of the work of the other departments which are directly contributory thereto. After a careful study of the requirements, we have concluded that the time officially assigned for this course is insufficient, and we have added 128 hours for laboratory work in commercial and dispensing pharmacy.

Experience has shown the value of the courses in microbiology and pharmaceutical sundries which were introduced in the three-year program. While both of these topics are correlated to materia medica, from the teaching standpoint they can be more adequately treated as separate subjects. Through the courtesy of several friends of the College, extensive exhibits of sundries, sick-room supplies, and biological products are gradually being acquired.

THE UNIVERSITY COURSE

The Department of Health of the City of New York has placed the Bachelor of Science in Pharmacy, graduating from this course, in the position of being eligible to conduct a bacteriological laboratory or to fill similar positions.

The attention of prospective students is directed to the increasing call for graduates of advanced courses, to fill other professional positions. The general application of Federal, state, and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which formerly were often left to incompetent and irresponsible em-

ployees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

To meet these higher requirements, four- and six-year courses of study, leading respectively to the degrees of Bachelor of Science in Pharmacy (B.S. in Phar.), and Doctor of Pharmacy (Phar.D.) have been established.

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. To members of the University Class only are open certain of the University privileges.

2. The University Class attends on five days weekly, and the course includes regular work in academic subjects, conducted by instructors approved by the Dean of the Faculty of Columbia College.

3. For the University Class, the College provides a thorough course of laboratory instruction in advanced chemistry, pharmacy, and physics and special courses in microscopy and bacteriology, consisting of both theoretical and laboratory instruction.

4. Our graduate course, leading to the degree of Doctor of Pharmacy, is open open only to graduates of the four-year University Course.

5. Not only is the degree of Bachelor of Science recognized as of higher rank than that of Graduate in Pharmacy, but the four-year course for which it is awarded qualifies its recipients for many lines of pharmaceutical work that are not open to graduates of the College Course.

GRADUATE COURSE

This course, leading to the degree of Doctor of Pharmacy, is open to graduates with the baccalaureate degree, conferred by this college or by other schools of pharmacy maintaining equivalent courses of study. The course consists of two full years of study in residence. Thirty hours weekly are occupied in research work in the department representing the major subjects, and three hours weekly in each of the other two departments. For this session, not more than two students will be matriculated in each of the three departments.

ENTRANCE REQUIREMENTS

COLLEGE COURSE

To be eligible for admission, the candidate must be at least seventeen years of age, and must meet the requirements for the pharmacy student qualifying certificate, as outlined on page 16.

THE UNIVERSITY COURSE

This course of four full academic years (September to June) leads to graduation with the other departments of the University, and to the degree of Bachelor of Science in Pharmacy, conferred by the University.

The requirements for admission to this course are the same as those for Columbia College. The student must be seventeen years of age, must have graduated

from a high school within or outside of the state of New York that is accredited by the Education Department of this state, and must present a pharmacy student qualifying certificate from the Education Department of this state, as outlined on page 16.

Applications for admission to the 1932-1933 session of the University Course should be filed on or before September 5, 1932.

The evidence of adequate preparation for admission to the University Course in the subjects required on the part of candidates who have not completed a year of college work, *includes both examination and school records.*

The subjects which candidates may offer in fulfillment of these requirements are outlined below. (A "unit" implies the study of a subject for a time equivalent to five hours weekly for one year.)

PRESCRIBED SUBJECTS

All candidates *must* offer:

ENGLISH	{ 1 (grammar and composition)	2 units
	2 (literature)	1 unit
MATHEMATICS	{ <i>ai</i> (algebra to quadratics)	1 unit
	<i>aii</i> (quadratics and beyond)	1 unit
	<i>c</i> (plane geometry)	1 unit

EITHER

(1) Latin ¹	4 units
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OR

(2) {	Latin, Greek, French, German, Spanish or Italian	3	}	5 units
	Physics or chemistry	1		
	History	1		

ELECTIVE SUBJECTS, to make up 15 units	4 or 5 units
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ELECTIVE SUBJECTS

Group I

The candidate may offer any of the following subjects not included among his prescribed subjects, without other restriction than that to offer an advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject.

Biology—See Zoölogy

The English Bible	1 unit
Elementary Greek	2 or 3 units
Elementary history	1 or 2 units
Drawing (freehand or mechanical)	1 unit
Music	1 unit
Intermediate French	1 unit
Intermediate German	1 unit
Intermediate Italian	1 unit
Intermediate Spanish	1 unit

¹ Greek, 3 units, may be substituted for Latin, in which case 6 elective units must be offered.

Advanced French	1 unit
Advanced German	1 unit
Social science	1 unit
Advanced Spanish	1 unit
Advanced mathematics (College)	½, 1 or 1 ½ units
And in the case of candidates not offering 4 units in Latin:	
Elementary Latin	2 or 3 units

Group II

The candidate may offer not more than 4 units in all from the four subjects following:

Elementary French	2 units
Elementary German	2 units
Elementary Italian	2 units
Elementary Spanish	2 units

Group III

The candidate may offer not more than 3 units in all from the six subjects following:

Botany	1 unit
Chemistry	1 unit
Physics	1 unit
Physiography	1 unit
Shopwork	1 unit
Zoölogy	1 unit

NEW METHOD

Under the "new method," candidates whose school and character records are entirely satisfactory, may meet the examination requirements by means of a psychological test. The school course must include three units in English, three in mathematics (elementary and intermediate algebra and plane geometry), and at least three units in a foreign language, ancient or modern. It must have been concerned primarily with languages, science, mathematics, and history.

OLD METHOD

Under the "old method," the examination requirements for admission may be satisfied by any one of the three following means, or any approved combination thereof:

1. By the examinations of the College Entrance Board, held in June of each year at Columbia University and at about 150 other educational centers in the United States and abroad.
2. By the examinations conducted at Columbia University in September of each year, by the Director of University Admissions.
(The examination grades in connection with the above two methods are interpreted in the light of the record which students have made in school.)
3. By the examinations given in the high schools by the Education Depart-

ment of the state of New York to students who have satisfactorily completed certain courses in these high schools. In these examinations, seventy-five per cent will ordinarily be regarded as the lowest passing mark.

For candidates qualifying for admission on the basis of examinations before Columbia University or the College Entrance Board, two methods are open:

a. Examination in Fifteen Units. A candidate may offer examinations in fifteen units as evidence of his preparation in secondary school subjects.

b. Four-Examination Plan. A candidate who has completed a satisfactory secondary school course with a high degree of proficiency may, by special permission, satisfy the examination requirement by means of "comprehensive examinations" in not less than four subjects including those prescribed for admission.

Candidates entering by the old method are required to take the psychological examination for purposes of record only.

Those contemplating the September, 1932, examinations, must file their applications with the Secretary of Columbia University on or before September 5, 1932. Those who contemplate taking the June, 1933, examinations, must file their applications with the Secretary of the College Entrance Board at 431 West 117th Street, New York, N. Y., early in May. Blank forms of application for either series of examinations may be secured from the respective secretaries.

Every candidate for admission to the University Course should secure a copy of the current Bulletin on Entrance Examinations and Admission which may be had upon application to the Secretary of the University.

ADMISSION TO ADVANCED STANDING

Candidates may be admitted to advanced standing only upon a satisfactory record from their school of previous residence. Provided they are eligible for the pharmacy student qualifying certificate required by the New York State Department of Education, candidates who have completed, without condition, corresponding courses in a pharmacy school registered by the State Education Department, are eligible for admission to the second, third, or fourth years, respectively.

FEES

The fees to be paid by students are subject to change at any time in the discretion of the Trustees. The following schedule is in force for the 1932-1933 session or for students accepted in any of the regular courses leading to degrees

COLLEGE COURSE (FIRST, SECOND AND THIRD YEARS)

Registration fee	\$5
Student activities	10
Breakage deposit	10
Examination fee	10
Tuition	250
Laboratory fees	45

UNIVERSITY COURSE

	<i>First and Second Years</i>	<i>Third Year</i>	<i>Fourth Year</i>	<i>Graduate Years</i>
Registration fee	\$5	\$5	\$5	\$5
Student activities	10	10	10	
Breakage deposit	10	25	25	25
Examination fee	10	10	15	20
Tuition	300	300	300	350
Laboratory fees	60	60	60	60

Special Courses. Students desiring to pursue individual courses as special students will be required to pay at the rate of \$7.50 per point.

Summer Courses. The fee for any laboratory course is \$25 for first, second, and third year work in the College Course. In the University Course, the fee is \$25 for first and second year work and \$50 for third and fourth year work.

Evening Courses. The fees for the various evening courses will be found among the descriptions of these courses, beginning on page 47.

Books and Supplies. It is estimated that an expenditure of \$50 will cover the cost of the textbooks and necessary apparatus required for the entire College Course, and of \$75 for the entire University Course for the B.S. degree. The heaviest expenditure in all cases will be in the first year; many of the required reference works being used also in subsequent years.

METHODS OF PAYMENT

Regular Courses

One of three methods for the payment of the tuition fee for the year may be elected by the candidate, as indicated below. In this connection, it is to be noted that all are required to pay the registration fee, the breakage deposit, the student activities fee and the first installment of the tuition fee at the time of registration. The dates for registration in the various classes will be found in the academic calendar on page 69.

A. Pay in full at the time of registration.

B. Pay one half of the tuition fee at the time of registration, and the balance on or before January 6, 1933. Under this arrangement, an additional \$3 must be added to the first installment.

C. Pay one third of the tuition fee at the time of registration; one third on or before December 5, 1932, and the balance on or before February 6, 1933. Under this arrangement, an additional \$5 must be added to the first installment.

A student electing plan B or C makes himself liable to suspension from further attendance if he fails to meet the payments when due.

Second, third and fourth year students, who register after the last day set for their registration (see Academic Calendar) are required to pay an additional fee of \$5 for late registration.

Examination Fees. Dates upon which fees for examination in course are required will be found in the Academic Calendar.

The rate for reexamination is on the basis of \$5 for each subject in September and \$10 for the entire series in the spring.

Rebates. The registration and student activities fees shall not be subject to rebate.

In the case of the total withdrawal of a student from the College, a partial return of the tuition fee may be authorized by the Trustees, but in no case shall more than two thirds of the total charge for that year be returned.

Special, Summer, and Evening Courses. Students registering in any of these courses are required to pay the tuition and other fees *in advance*.

METHOD OF INSTRUCTION

The instruction of each class during the first and second years of the College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College. During the third year, an additional half-day must be devoted to work in the pharmacy laboratory. All students who can do so are urged to devote their third year wholly to College work.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.

REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the bulletin boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

AUTHORITY OF THE DEAN

The Dean is the executive officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

DEAN'S OFFICE HOURS

Ordinarily the Dean will be found in his office at the hours given below. As he is frequently called out of the city, it is advisable to make important appointments by telephone.

During College Term

Tuesday at 11 a. m.

Wednesday, Friday, and Saturday at 10 a. m.

During Summer Vacation

Tuesday, Thursday, and Saturday at 10 a. m.

REQUIREMENTS FOR ALL REGULAR STUDENTS

Attendance

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third and fourth year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during at least ninety per cent of the periods assigned to each course pursued. For being late twice at daily opening, the student will be charged with one absence.

For failure to meet this requirement, the student forfeits the privilege of presenting himself for examination in the course or courses in which the excessive absences occurred.

Advancement in Classes

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the passing mark being seventy-five per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations will be allowed to undergo supplementary examinations to be held as announced on page 69, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course of that year, provided, however, that such students may be refused readmission if, in the judgment of the Faculty, they are not qualified to be students of this college. A student who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer, except in special cases.

By a regulation of the State Education Department, students failing in more than two subjects must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 1, 1932.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examinations on paying an additional fee of \$10 and complying with all other requirements.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination.

All students must obtain a rating of seventy-five per cent or higher in every department in which they may be examined. Any student failing in one or more departments, but not in laboratory courses, may present himself for re-examination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without re-examination in the other departments. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 47.

Students of the third year University Class failing in a laboratory course of a single department may be permitted to remove this failure during the Summer Laboratory Session. Students of this class failing in the laboratory courses of more than one department will be required to repeat in full those courses in which they fail, during the next regular session.

PRIZES AND SCHOLARSHIPS

Note. Competition for the Kappa Psi Prize, the Seabury Scholarship and the Plaut Fellowship is open only to those students who pursue their entire course at this college.

The College reserves the right to withhold the award of any scholarship or prize, if in its opinion, no candidate has exhibited qualifications justifying the award.

HONOR ROLL. The College Classes and the University Classes will have separate and distinct honor rolls.

For the College Classes, the roll is limited to thirteen candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the three Departments of Pharmacy, Materia Medica, and Chemistry will be the basis of computation for the general average.

For the University Classes, the roll is limited to three candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the four Departments of Pharmacy, Materia Medica, Chemistry, and the Cultural Courses will be the basis of computation for the general average.

TRUSTEES' PRIZES. The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100 each, for the highest rating secured in competitive examination in the three Departments of Chemistry, Pharmacy, and

Materia Medica. These competitive examinations are open to those members of the graduating class who have attained positions on the honor roll of the College Course. (If the number of these honor students be less than thirteen, a sufficient number of graduates having the next highest averages to make that number will be permitted to compete for these prizes.) A certificate, stating the honor for which the prize has been awarded, is also presented to each of the recipients.

ALUMNI ASSOCIATION PRIZES. The Alumni Fund of the College of Pharmacy provides annually for a gold, a silver, and a bronze medal to be presented at Commencement to the three students having respectively attained the first, second, and third highest standings in all branches taught during the third year of the College Course.

The association also provides for five additional prizes awarded annually on Alumni Day to members of the first and second year classes of the College Course, as follows: *Torsion Balance*, awarded to that second year student who has secured the highest standing during the work of the two years; a copy of *The United States Dispensatory* to that student who has secured the highest standing during the work of the second year; a copy of Rusby, Bliss, and Ballard, *Properties and Uses of Drugs* awarded to that student securing the second highest standing in the work of the second year; a copy of Arny's *Principles of Pharmacy* to that student who has secured the highest standing in the work of the first year, and a copy of Sadtler, Coblentz, and Hostmann's *Pharmaceutical Chemistry* to that student who has secured the second highest standing in the work of the first year.

In the event that the winner of the *Torsion Balance* has the highest record for the second year, then *The United States Dispensatory* and the *Materia Medica* will be awarded respectively to the second and third member of the honor roll.

MAX J. BREITENBACH PRIZE. A cash prize of \$200, accompanied by a certificate, offered annually for the highest proficiency in the junior (third year) University Class. This prize is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach, for many years a devoted Trustee.

KAPPA PSI PRIZE. The Gamma Chapter of the Kappa Psi Fraternity offers annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

LILLIAN LEITERMAN PRIZE. A gold medal, offered annually by Miss Lillian Leiterman (1911), to that woman member of the graduating class who has maintained the highest standing throughout the entire three years of the College Course.

J. LEON LASCOFF PRIZES. Life membership in the American Pharmaceutical Association and in a state pharmaceutical association, offered annually by Trustee J. Leon Lascoff to the two members of the graduating class in the College Course who have been prominent in student activities, who have maintained a high degree of general scholarship, and who are adjudged by the Faculty to be worthy of such awards.

TRUSTEES' SCHOLARSHIPS. To the four students who maintain the highest proficiency in their respective classes during the first and second years of the College and University Courses, the Board of Trustees of the College annually awards scholarships for one year's tuition, to be applied to the following session of their respective courses.

GEORGE J. SEABURY SCHOLARSHIP. This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, Mr. George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the senior (fourth) year of the University Course, of that member of this class who has maintained the highest standing during the three years.

ISAAC PLAUT FELLOWSHIP. This fellowship for the encouragement of graduate study and original research was founded by Mr. Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this fellowship must have secured the degree of B.S. in Pharmacy at this college, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this college who will have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

The Fellow will be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He will attend a foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and will pursue a course of study approved by the Faculty. At the close of his incumbency he will present to the Faculty a written report of his work.

The fellowship payment will be made in three equal installments, one on June 15, one on November 1, and one on March 1, provided that the Fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he will forfeit all further privileges and emoluments conferred upon him by his appointment to the fellowship, and the Trustees of the College of Pharmacy may declare the fellowship vacant.

E. R. SQUIBB PRIZE. This is an annual cash prize of \$100, offered by Messrs. E. R. Squibb and Sons, in memory of Dr. E. R. Squibb. It is awarded to that Graduate in Pharmacy who exhibits the greatest proficiency in analytical chemistry during his third year, as determined by the laboratory records.

LOUIS DOHME PRIZE. This is an annual cash prize of \$100, founded by Mr. Ernest Stauffen, in memory of Louis Dohme. It is awarded to that Graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopœia and National Formulary, as determined by the laboratory records and examinations.

JOSEPH WEINSTEIN PRIZE. This prize consists of a gold medal and is offered by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that Graduate in Pharmacy who has exhibited the greatest

proficiency in analytical chemistry during the three years, as determined by the laboratory records.

ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that Graduate in Pharmacy who has obtained the highest general average in practical laboratory work during the third year.

LEHN and FINK PRIZE. This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the Graduate in Pharmacy attaining the highest average in the third year examinations in the Department of Pharmacy.

WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that member of the graduating class who has attained the highest general average in the practical laboratory work of the Department of Pharmacy during the three years of the College Course.

GERMAN APOTHECARY'S ASSOCIATION PRIZE. In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited during the final year of the College Course the greatest proficiency in the compounding of prescriptions.

OLSHANSKY MEMORIAL MEDAL. This is a gold medal, founded by the students of this college in attendance upon the session of 1923-1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in the final year of the College Course in the subject of dispensing pharmacy.

DIEKMAN PRIZE. This prize was founded in 1930 by the Dante Circle, in honor of Dr. George C. Diekman, Professor Emeritus of Pharmacy. It consists of a gold charm, and is awarded to that member of the graduating class who has attained the highest average in the courses in theoretical pharmacy throughout the three years of the College Course.

NEW YORK STATE PHARMACEUTICAL ASSOCIATION PRIZE. A year's membership offered by the Association to a member of the Honor Roll not winning any other prize.

STUDENT ORGANIZATIONS

Under direction of the Student Activities Committee.

STUDENT COUNCIL

FRATERNITIES AND SORORITIES

Kappa Psi
Phi Delta Chi
Rho Pi Phi
Delta Sigma Theta

Alpha Zeta Omega
Sigma Tau Epsilon
Tau Delta Mu
Circolo Dante

Lambda Kappa Sigma

SOCIETIES

Maimon Society
Rice Chemical Society

Menorah Society
Chess and Checker Club

ATHLETICS

Basket ball

Wrestling

SYNOPSIS OF STUDIES FOR THE SESSION OF 1932-1933

COLLEGE COURSE

First Year

		Class Hours	Laboratory Hours	Points
<i>Chm.</i> 1-2	General physics	3	0	6
<i>Chm.</i> 3-4	Inorganic chemistry	3	0	6
<i>Chm.</i> 5-6	Analytical chemistry (qualitative)	0	3	3
<i>MM</i> 1-2	Botany	2	0	4
<i>MM</i> 3-4	Botany laboratory	1	4	6
<i>MM</i> 5-6	Posology	1	0	2
<i>Phr.</i> 1-2	Operative pharmacy	2	3	7
<i>Phr.</i> 3	Pharmaceutical arithmetic	2	0	2
<i>Phr.</i> 4	Pharmaceutical history and ethics	2	0	2

Second Year

<i>Chm.</i> 55-56	Inorganic chemistry	3 ½	0	7
<i>Chm.</i> 59-60	Analytical chemistry (acidic ions and volumetric)	0	3 ½	3 ½
<i>MM</i> 53-54	Pharmacognosy	0	3	3
<i>MM</i> 57-58	Human physiology and hygiene	2	0	4
<i>MM</i> 59-60	Microbiology	1	1	3
<i>Phr.</i> 51-52	Theory of pharmacy	1 ½	0	3
<i>Phr.</i> 53-54	Pharmaceutical Latin	1 ½	0	3
<i>Phr.</i> 55-56	Dispensing pharmacy	1	3	5
<i>Phr.</i> 61-62	Commercial pharmacy	3 1	2 2	6 4

Third Year

<i>Chm.</i> 103-104	Organic chemistry	3	0	6
<i>Chm.</i> 107-108	Newer remedies	2	0	4
<i>Chm.</i> 109 (110)	Analytical chemistry (advanced volumetric and pharmacopœial assaying)	0	6 ¹	3
<i>MM</i> 101-102	Materia medica	3	0	6
<i>MM</i> 103-104	Toxicology	1	0	2
<i>MM</i> 109-110	Medical appliances and first aid	1	0	2
<i>Phr.</i> 101-102	Theoretical pharmacy	3	0	6
<i>Phr.</i> 103-104	Theoretical dispensing pharmacy	2	0	4
<i>Phr.</i> 105 (106)	Manufacturing pharmacy	0	6 ¹	3
<i>Phr.</i> 107-108	Dispensing pharmacy	0	4	4
<i>Phr.</i> 109-110	Pharmaceutical jurisprudence and business pharmacy	3	0	6

¹ During 16 weeks.

UNIVERSITY COURSE

First Year

		Class Hours	Laboratory Hours	Points
<i>Chm. 1-2</i>	General physics	3	0	6
<i>Chm. 3-4</i>	Inorganic chemistry	3	0	6
<i>Chm. 7</i>	Inorganic chemistry laboratory	0	4 ²	2
<i>Chm. 8</i>	Analytical chemistry	0	4 ¹	2
<i>Chm. 10</i>	Physics laboratory	0	4 ²	2
<i>Phr. 3</i>	Pharmaceutical arithmetic	2	0	2
<i>Phr. 4</i>	Pharmaceutical history and ethics	2	0	2
<i>Phr. 5-6</i>	Operative pharmacy	2	2	6
<i>Eng. 1-2</i>	English	4	0	8
<i>Hist. 1-2</i>	American history	3	0	6

(For information concerning subsequent years, see page 68.)

Second Year

<i>Chm. 54</i>	Practical physics	0	4 ²	2
<i>Chm. 55-56</i>	Inorganic chemistry	3 ½	0	7
<i>Chm. 57-58</i>	Analytical chemistry (acidic ions and volumetric)	0	3 ½	3 ½
<i>MM 55-56</i>	Macroscopic pharmacognosy	0	2	2
<i>MM 57-58</i>	Human physiology and hygiene	2	0	4
<i>MM 61-62</i>	Bacteriology	1	2	4
<i>Phr. 51-52</i>	Theory of pharmacy	1 ½	0	3
<i>Phr. 53-54</i>	Pharmaceutical Latin	1 ½	0	3
<i>Phr. 57-58</i>	Dispensing pharmacy	1	3	5
<i>Phr. 59</i>	Manufacturing pharmacy	0	4 ²	2
<i>Phr. 61-62</i>	Commercial pharmacy	3	0	6
<i>Ger. 51-52</i>	German	5	0	10

Third Year

<i>Chm. 101-102</i>	Theories of chemistry	1	0	2
<i>Chm. 103-104</i>	Organic chemistry	3	0	6
<i>Chm. 106</i>	Analytical chemistry (advanced volumetric, pharmacopœial testing, and urine analysis)	0	16 ¹	10
<i>MM 101-102</i>	Materia medica	3	0	6
<i>MM 103-104</i>	Toxicology	1	0	2
<i>MM 111-112</i>	Microscopic pharmacognosy	½	1 ½	2 ½
<i>Phr. 101-102</i>	Theoretical pharmacy	3	0	6
<i>Phr. 109-110</i>	Pharmaceutical jurisprudence and business pharmacy	3	0	6
<i>Phr. 111</i>	Manufacturing pharmacy	0	13 ³	5
<i>Phr. 113</i>	Practical dispensing pharmacy	0	3 ²	1
<i>Math. 101</i>	Algebra	3	0	3
<i>Math. 102</i>	Trigonometry	3	0	3

¹ During 19 weeks.² During 16 weeks.³ During 12 weeks.

Fourth Year

<i>Chm. 151-152</i>	Inorganic quantitative analysis	1	29 ³	10
<i>Chm. 153-154</i>	Food analysis and toxicology	1	29 ³	10
<i>Chm. 155-156</i>	Biological chemistry	1	0	2
<i>MM 152</i>	Applied pharmacognosy	2	21 ³	6 ½
<i>MM 154</i>	Botanical taxonomy	0	6 ³	1 ½
<i>MM 155-156</i>	Human physiology	1	0	2
<i>Phr. 151-152</i>	Advanced pharmacy	1	0	2
<i>Phr. 153-154</i>	Pharmaceutical assaying	0	29 ³	7
<i>Bibl. 151-152</i>	Pharmaceutical bibliography	1	0	2

³ During 8 weeks.

COURSES OF INSTRUCTION

CHEMISTRY

Chemistry 1-2—General physics (for University freshmen and first year College students). Lectures and recitations 3 hours, 6 points. Professor A. TAUB and instructors.

The first semester of this course covers the subjects of mechanics, the kinetic molecular theory, the properties of matter, heat, wave motion, and sound.

The second semester embraces the subjects of magnetism, electricity and light. Particular consideration is given to the electron theory, electrolysis, ionization of gases, spectroscopy and polarization.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of modern physical apparatus.

Textbook: Stewart, *College Physics*.

Chemistry 3-4—General inorganic chemistry (for University freshmen and first year College students). Lectures and recitations 3 hours, 6 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, the beginning of consecutive instruction in chemistry covering three years, is given to the first year students of both the College and the University Classes. It opens with a careful consideration of the fundamental principles of chemistry followed by a discussion of the non-metals and their compounds from their cultural, technical, and pharmaceutical viewpoints.

Textbooks: Deming, *General Chemistry*, third edition; *U. S. Pharmacopæia*.

Chemistry 5-6—Analytical chemistry (first year College students). Laboratory 3 hours, 3 points. Professors H. H. SCHAEFER, L. JAYNE and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized and separations and identifications of group members are performed. Finally, all facts required by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on unknown samples.

Textbook: Schaefer and Bliss, *Qualitative Chemical Analysis*.

Chemistry 7—Inorganic chemistry laboratory (for University freshmen). Laboratory 4 hours for 16 weeks, beginning September 19, 1932. 2 points. Professor H. C. KASSNER and instructors.

The student will be made familiar with laboratory processes by means of a course of experiments in inorganic chemistry, involving the isolation of important elements and a study of their physical and chemical properties; typical compounds are prepared and purified and an examination of their reactions is carried out. Fundamental laws of chemistry are illustrated by experiments conducted by the students who thus obtain a clear understanding of the principles upon which the science of chemistry is based, as well as experience in the manipulation of chemical apparatus.

Textbook: Deming and Arenson, *Exercises in General Chemistry*.

Reference Book: Deming, *General Chemistry*.

Chemistry 8—Analytical chemistry (for University freshmen). Laboratory 4 hours for 16 weeks, beginning January 23, 1933. 2 points. Professor H. C. KASSNER and instructors.

This course in qualitative analysis consists of a study of the basic ions; first the student learns their reactions and he is then taught to separate them systematically and to identify them. Finally he is required to analyze solutions containing two or more basic ions. Throughout the course the theoretical principles upon which the laboratory work is based are explained in detail.

Textbook: Scott, *Qualitative Analysis*; Scott, *Elements of Qualitative Chemical Analysis*.

Chemistry 10—Practical physics (for University freshmen). Laboratory course 4 hours for $\frac{1}{2}$ year, 2 points. Professor A. TAUB and instructors.

The course consists of sixteen half-day periods of four hours each, given during the second half of the year.

This work consists of experiments in fundamental physical measurements followed by special work in mechanics, heat, light, sound, and electricity. The laboratory is equipped not only with apparatus for routine exercises, but has the appliances necessary for work in colorimetry, spectroscopy, spectrophotometry, refraction, calorimetry, and electrochemistry.

Chemistry 54—Practical physics (for University sophomores). Laboratory course 4 hours for $\frac{1}{2}$ year, 2 points. Professor A. TAUB and instructors.

For description, see *Chemistry 10*.

Chemistry 55-56—Inorganic chemistry (for University sophomores, and second year College students). Lectures and recitations $3\frac{1}{2}$ hours, 7 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, a continuation of *Chemistry 3-4*, will be devoted to a consideration of the metallic elements and their compounds. It will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry, such as the modern theories concerning valence, chemical equilibrium, oxidation, reduction and atomic structure, will be discussed. In descriptive chemistry, the course will consider all of the more important metallic elements and their salts. These will be discussed from the standpoint of modern industrial chemistry.

Exercises in writing and calculating chemical equations and work on problems in chemical arithmetic are given in special quiz periods devoted exclusively to these important subjects.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition.

Chemistry 57-58—Analytical chemistry (for University sophomores). Laboratory course $3\frac{1}{2}$ hours, $3\frac{1}{2}$ points. Professor H. C. KASSNER and instructors.

The course in qualitative analysis begun in the first year is continued through the first half of the second year. The sequence of work is as follows:—(1) the study of the acidic-ions according to an analytical scheme of separation; (2) a systematic method of preliminary testing of unknown compounds; (3) the preparation for analysis of water-insoluble substances; and (4) the complete qualitative analyses of unknown solutions or powders containing two or more compounds.

The second half of the year's work is devoted to a course in volumetric analysis. This begins with the study of general principles and theoretical considerations, the theory of indicators, pH values and the use of the analytical balance. It continues with the preparation of certain volumetric solutions and their uses in quantitative analysis by (1) neutralization, (2) precipitation, (3) oxidation and reduction, and (4) iodometry.

Textbooks: Scott, *Elements of Qualitative Chemical Analysis*; Scott, *Qualitative Analysis*; U. S. Pharmacopœia; Jenkins and DuMez, *Quantitative Pharmaceutical Chemistry*.

Chemistry 59-60—Analytical chemistry (second year College students). Laboratory course $3\frac{1}{2}$ hours, $3\frac{1}{2}$ points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.

The first half of the second year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

The second half of the school year is devoted to the theory and practice of volumetric analysis. The proper preparation of volumetric solutions is given consideration and all types of U. S. P. volumetric assays are conducted. The theories of indicators are presented and considerable time is devoted to the calculations involving a knowledge of volumetric analysis.

Textbooks: Schaefer and Bliss, *Qualitative Chemical Analysis*; U. S. Pharmacopœia.

Chemistry 101-102—Theories of chemistry (for University juniors). Lectures and recitations 1 hour, 2 points. Professor H. H. SCHAEFER.

The object of this course is to bring together, to correlate and to elaborate somewhat the various theories presented to the student in the regular chemistry and physics lectures. Consideration is given to the kinetic theory, the gas laws, the laws governing change of state, the quantitative laws of chemical combination, the atomic hypothesis, the laws of valence, the periodic system, radioactivity, atomic disintegration, atomic structure, solubility, ionization, indicators, equilibrium, electrochemistry, and colloids.

Special importance is placed upon the practical application of modern theories of physical chemistry to analytical processes and methods.

Textbook: Chapin, *College Chemistry*.

Chemistry 103-104—Organic chemistry (for University juniors and third year College students). Lectures and recitations 3 hours, 6 points. Professors H. V. ARNY, A. TAUB and instructors.

This course, a continuation of *Chemistry 3-4* and *55-56*, will be devoted to a comprehensive study of the carbon compounds, special care being taken to keep the course abreast the new applications of organic chemistry in pharmacy and medicine. The preparation of the more common organic chemicals is given careful consideration and advances under modern methods of research are presented to the class as they are reported.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; U. S. Pharmacopœia.

Chemistry 106—Analytical chemistry and urine analysis (for University juniors). Laboratory. 16 hours for 19 weeks, beginning December 12, 1932, 10 points. Professor H. C. KASSNER and instructors.

During the first part of the course, the student is supplied with pure and adulterated samples of official organic chemicals and is required to test them for identity and purity to determine whether they conform to the requirements of the Pharmacopœia, each sample studied representing a typical class of organic compound. This work also involves the determination of coagulating, boiling and melting points, fractionations, alcoholmetric estimations and other determinations of like character.

A short course in the qualitative examination and identification of organic compounds, including the preparation of derivatives and the determination of physical constants is included.

The second section of the course is devoted to volumetric analysis, the solutions used being prepared and standardized by the student. The substances assayed include antiseptics, disinfectants, ointments, volatile oils, etc.

The third part of the year's work deals with the assaying of vegetable drugs, including determination of alkaloids in crude drugs and their pharmaceutical products, crude fiber, soluble extractive, etc.

The above course is concluded with certain miscellaneous assays. The final period is devoted to the analysis of urine.

Textbooks: *U. S. Pharmacopæia*; H. T. Clarke, *Handbook of Organic Analysis*; Jenkins and DuMez, *Quantitative Pharmaceutical Chemistry*.

Chemistry 107-108—Newer remedies (third year College students). Lecture and recitations 2 hours, 4 points. Professor H. H. SCHAEFER and instructors.

The aim of this course is to make the students familiar with the many preparations generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given.

Textbook: *New and Non-official Remedies*.

Chemistry 109—Analytical chemistry (third year College students). Laboratory 6 hours for $\frac{1}{2}$ year, 3 points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.

This course will be given in six-hour periods to one section during the first half year and to the other section during the second half. This will enable the student to perform operations which require more time than is available in the usual three-hour period. The course will be devoted entirely to pharmaceutical testing and assaying. Some of the more important operations to be carried out are:—The preparation and standardization of volumetric solutions, testing the purity and strength of official chemicals and galenicals, selected gravimetric determinations, iodine values, saponification values, examination of oils, identification of alkaloids. The assay of crude drugs will be given special attention by dividing the section into still smaller groups for this work thus insuring better and more careful supervision. Practice will of course be given in the use of the analytical balance.

Textbooks: *United States Pharmacopæia and National Formulary*.

Chemistry 110—Same as Chemistry 109 but given during the second half of year.

Chemistry 151-152—Inorganic quantitative analysis (for University seniors). Lectures 1 hour a week for 32 weeks, laboratory, 29 hours a week for 8 weeks, beginning September 19, 1932, 10 points. Professor H. C. KASSNER and instructors.

The aim of this course is to train the student to carry out with precision many of the more difficult analyses of chemical and pharmaceutical products.

The laboratory work of the course consists, in the main, of a series of selected gravimetric determinations covering a wide field of substances, chosen to illustrate typical methods of procedure. This work is supplemented by operations involving the use of the viscosimeter, bomb calorimeter, etc.

In the lecture course, methods of quantitative analysis, gravimetric, volumetric, colorimetric etc., are discussed at length and compared.

Reference books: Scott, *Standard Methods of Chemical Analysis*; Hillebrand and Lundell, *Applied Inorganic Analysis*.

Chemistry 153-154—Food analysis and toxicology (for University seniors). Lectures 1 hour a week for 32 weeks, laboratory 29 hours a week for 8 weeks, beginning November 14, 1932, 10 points. Professors H. V. ARNY, H. C. KASSNER, and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course describing the various chemical and physical methods of food examination.

Textbooks: Leach, *Food Analysis*; Mason, *Examination of Water*.

Reference Books: Allen, *Commercial Analysis*; Autenrieth-Warren, *Detection of Poisons*.

Chemistry 155-156—Biological chemistry (for University seniors). Lectures 1 hour, 2 points. Professor M. KARSHAN.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

MATERIA MEDICA

Materia Medica 1-2—Botany (for first year College students). Lectures and recitations 2 hours, 4 points. Professor F. HART and instructors.

The object of this course is to prepare the student for an understanding of that part of materia medica which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction includes a brief consideration of plant life in general and the evolution of the higher plants from those of a simpler nature. The major portion of the time available is devoted to the morphology of the higher plants from which nearly all of our vegetable drugs are derived, the terms used in official descriptions, systems of dissection of these parts both with and without the aid of the simple microscope.

Textbook: Rusby, *Manual of Botany*.

Materia Medica 3-4—Botany laboratory (first year College students). Lectures and recitations 1 hour, laboratory 4 hours, 6 points. Professors C. W. BALLARD, F. HART, H. TAUB, and instructors.

This course affords opportunity for personal observations supplemental to the theoretical training of the botany lectures (*MM 1-2*) and is a preparation for the study of pharmacognosy. The course is divided into three parts as follows:

General: A brief résumé of the developmental sequence of plant life from the single-celled forms to the seed-bearing plants.

Morphology: A detailed study of the various organs of the seed-bearing plants and involving dissection of these parts both with and without the aid of the simple microscope.

Histology: As ability to use a microscope properly is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts and methods of using the instrument.

The course under the direction of Professor BALLARD includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis, and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant.

Textbooks: Ballard, *Elements of Vegetable Histology*, Second Edition; Ballard and Hart, *Laboratory Manual*.

Materia Medica 5-6—Posology (first year College students). Lectures and recitations 1 hour, 2 points. Professor H. TAUB.

The average dosage of U. S. P. and N. F. drugs is considered with the object of teaching the student to recognize an overdose in actual prescription practice. The course covers the recognition of safe and dangerous prescriptions, approximate equivalents and conversion methods from one system into the other, and dosage of non-official but commonly prescribed synthetic remedies.

Materia Medica 53-54—Pharmacognosy, macroscopic and microscopic (second year College students). Laboratory 3 hours, 3 points. Professor H. TAUB and instructors.

Macroscopic: This part of the course comprises laboratory instruction in the classification, identification and description of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial sources; official description, definition and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. A knowledge of botany (*Materia Medica 1-2, 3-4* or equivalent) is prerequisite to a proper understanding of the work in this course.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*.

Microscopic: The preliminary work of this part of the course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (course *Materia Medica 3-4*) is coördinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements *in situ* and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

Textbooks: Ballard, *Elements of Vegetable Histology*, Second Edition; Ballard, *Laboratory Manual*.

Materia Medica 55-56—Macroscopic pharmacognosy (for University sophomores). Laboratory 2 hours, 2 points. Professor H. TAUB.

This course includes all of the instruction offered in macroscopic pharmacognosy, *Materia Medica 53-54*, but in addition many non-official articles of commercial and technical importance are studied. Experience in manufacturing fields has shown that these non-official drugs and drug materials are in frequent use and familiarity with them is especially important in view of their non-inclusion in the Pharmacopœia and National Formulary.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*; Youngken, *Pharmacognosy*.

Materia Medica 57-58—Human physiology and hygiene (for University sophomores and second year College students). Lectures and recitations 2 hours, 4 points. Professor H. H. RUSBY and instructors.

In addition to the skill in pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification

of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in human physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of materia medica as is properly required of the practicing pharmacist.

Textbook: Bachman and Bliss, *Essentials of Physiology*.

Materia Medica 59-60—Microbiology (second year College students). Lectures and recitations 1 hour, laboratory and demonstrations 1 hour, 3 points. Professor F. HART and instructors.

This subject constitutes an introduction to the nature, behavior and effects of microorganisms, especially of bacteria. Without entering upon the subject of practical laboratory bacteriology, as is done in the University Course, it discusses the life history of bacteria, and the part that they play in fermentation and decomposition, as well as in disease, and indicates the general nature of the means employed in combating them, and treats of biological products. The subject of sterilization, as employed in the pharmacy, and the principles of antiseptics and immunization are studied.

Materia Medica 61-62—Bacteriology (for University sophomores). Lectures 1 hour, laboratory 2 hours, 4 points. Professor F. HART and instructors.

A separate and fully equipped bacteriological laboratory is maintained, and practical work in this important field is taken up. The general principles of the science are taught, and the students cultivate, stain, and study the more important microorganisms. Laboratory methods in the bacterial examination of water, air, milk, ice, sputum and excreta are given, and methods of disinfection and sterilization are practically demonstrated. The course includes the microscopy of the blood with special emphasis on the structural differences of that tissue in health and disease.

Textbook: Mackie and McCartney, *An Introduction to Practical Bacteriology*.

Materia Medica 101-102—Materia medica (for University juniors and third year College students). Lectures and recitations, 3 hours, 6 points. Professor C. W. BALLARD and instructors.

This course includes instruction in both the inorganic and organic divisions of drugs. In connection with the extension of our course to three years, the instruction in materia medica has been completely reorganized and a new textbook has been written for the students. In the new arrangement, the drugs have been classified in accordance with their medicinal uses. Discussion of the individual drugs covers the official titles, abbreviations, definitions and standards, origin, preparation, preservation, variations in quality and causes of such variation, constituents, properties and uses, preparations and doses. All instruction in description, structure and identification, and the detection of adulterants and impurities is referred to the extensive course in pharmacognosy.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

Materia Medica 103-104—Toxicology (for University juniors and third year College students). Lectures and recitations, 1 hour, 2 points. Professor C. W. BALLARD and instructors.

The classification of poisons is based upon the physiological action of medicines, taught in the preceding year, and is synoptically presented at the beginning of the course in materia medica. The toxicology of the individual drugs is then taken up in detail in connection with their physiological action and medicinal uses. Experience has shown that by this method the modes of occurrence of poisoning accidents, the poisonous doses, the action of poisons and their rational treatment, are all made more intelligible to the student, and are better impressed upon his memory, than by treating the subject as entirely disconnected from that of materia medica.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

Materia Medica 109-110—Medical appliances and first aid (third year College students). Lectures 1 hour, 2 points. Professor C. W. BALLARD.

This course includes a systematic presentation of the facts of interest to the retail pharmacist in the use and sale of the ordinary sick-room sundries. The course is thus linked with materia medica on the one hand and commercial pharmacy on the other. Among the topics considered are: bandaging and dressing materials, rubber sundries, glass and metal appliances and ligatures. A brief series of lectures is included in connection with first-aid treatment. This instruction is to enable the pharmacist to cooperate intelligently with the physician in dealing with the common emergencies in which first recourse is often to the nearest pharmacy.

Materia Medica 111-112—Microscopic pharmacognosy (for University juniors). Lectures $\frac{1}{2}$ hour, laboratory $1\frac{1}{2}$ hours, $2\frac{1}{2}$ points. Professor H. TAUB and instructors.

This course consists in a detailed study of the histological structure of the several plant organs, followed by a consideration of the characters and adulterants of the commonly used powdered drugs. It includes the preparation of specimens both in sectioned and powdered forms and the application of stains and microchemical tests to the materials so prepared.

Textbook: Ballard, *Laboratory Manual*.

Materia Medica 152—Applied pharmacognosy (for University seniors). 2 hours lecture, 21 hours laboratory for eight weeks beginning March 20, 1933. $6\frac{1}{2}$ points. Professors C. W. BALLARD, H. TAUB, and instructor.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials, using these sections for the demonstration of staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work, it is expected that the student will avail himself of the library facilities of the College and freely use the economic drug and food collections of the laboratory for reference and comparison purposes. The aim is to duplicate actual commercial laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, so far as possible, be commercial products which have been analyzed by microscopical methods.

References: Youngken, *Pharmacognosy*.

Materia Medica 154—Botanical taxonomy (for University seniors). 6 hours laboratory for eight weeks beginning March 20, 1933. $1\frac{1}{2}$ points. Professor H. H. RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Textbook: Rusby, *Manual of Botany*.

References: Bentham and Hooker, *Genera Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

Materia Medica 155-156—Human physiology (for University seniors). Textbook and conferences 1 hour, 2 points. Dr. A. HOPPING.

This course consists of a series of discussions, based on assigned reading, occupying 1 hour weekly throughout the term.

Textbook: Howell, *Physiology*.

PHARMACY

Pharmacy 1-2—Operative pharmacy (for first year College students).

Lecture 1 hour, recitation 1 hour, laboratory 3 hours. 7 points. Professors L. N. BROWN, H. M. CARTER, J. S. DORFMAN, and instructors.

The purpose of this course is to introduce the student to the fundamentals of pharmaceutical science. It comprises the study of elementary operations, such as heating, evaporating or sublimation, distillation, solution, crystallization, precipitation, filtration, etc. It also includes a study of the general principles involved in the manufacture of galenicals, such as fluid extracts, tinctures, etc.

The laboratory work is closely related to that of the lectures. The various processes are carried out; type products are manufactured. The course also includes determination of specific gravities, solubility of determination and alcoholic content of pharmaceutical preparations.

Textbooks: U. S. Pharmacopœia, Arny's *Principles of Pharmacy*; Wimmer's *Operative Pharmacy Notes*.

Pharmacy 3—Pharmaceutical arithmetic (for first year College and University students). Lecture 1 hour; recitation 1 hour. One semester. 2 points. Professor L. N. BROWN and instructors.

This comprises the first half of the required instruction in pharmaceutical arithmetic, the second half being given in the second year. The more elementary portions of the work are taken up, such as weights and measures, specific gravity calculations, thermometric scales, conversions of the various systems into each other, etc.

Textbook: Sturmer, *Pharmaceutical Arithmetic*.

Pharmacy 4—Pharmaceutical history and ethics (for first year College and University students). Lecture 1 hour, recitation 1 hour. One semester. 2 points. Professor C. P. WIMMER and instructors.

The purpose of this course is to introduce pharmacy as a profession to the student. It consists of a series of lectures on the historical development of pharmacy, beginning with the Egyptian era and tracing it through the Greek, Roman, Arabic, and European periods up to the present time. Special stress is laid upon the development of pharmacy in the United States; its position in the economic life of the nation; its organization; the aims, purposes and accomplishments of the various pharmaceutical associations; the pharmaceutical Code of Ethics, etc.

Pharmacy 5-6—Operative pharmacy (for first year University students). Lecture 1 hour, recitation 1 hour, laboratory 2 hours. 6 points. Professor H. M. CARTER and instructors.

This course is similar in nature and scope, as outlined under *Pharmacy 1-2*.

Textbooks: Same as for *Pharmacy 1-2*.

Pharmacy 51-52—Theoretical pharmacy including pharmaceutical arithmetic (for University sophomores and second year College students). Lecture 1 hour, recitation $\frac{1}{2}$ hour. 3 points. Professors C. P. WIMMER, L. N. BROWN, and instructors.

This course is devoted to the study of pharmaceutical arithmetic in its various aspects. It comprises the study of proportions, percentage, alligation, reducing and enlarging formulæ, etc., as used in both manufacturing and dispensing pharmacy.

During the second semester the study of the official preparations is begun and carried along through the fluid extracts, extracts, tinctures and other preparations made directly from vegetable drugs.

Textbooks: Sturmer, *Pharmaceutical Arithmetic*; U. S. Pharmacopœia; *National Formulary*.

Pharmacy 53-54—Pharmaceutical Latin (for University sophomores and second year College students). Lecture 1 hour, recitation $\frac{1}{2}$ hour. 3 points. Professor J. S. DORFMAN and instructors.

This course is devoted to the study of pharmaceutical Latin. The work is divided as follows: (A) Study of the principles of etymology and syntax; (B) systematic study of Latin vocabulary including official Latin titles, botanical nomenclature and abbreviations with special reference to the formation of words and their relative importance to pharmacy; and (C) practice in prescription writing, necessary to an intelligent understanding of Latin used in prescriptions.

Textbooks: Dorfman, *Pharmaceutical Latin*; U. S. *Pharmacopœia*; *National Formulary*.

Pharmacy 55-56—Dispensing pharmacy laboratory (for second year College students). Laboratory course 3 hours, recitation 1 hour. 5 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The first semester embraces general methods of compounding pills, troches, bacilli, emulsions, ointments and suppositories. It includes theoretical instruction and training in practical work emphasizing the habits of accuracy and neatness.

The second semester deals more especially with prescriptions and includes the compounding and dispensing of the various types requiring technical knowledge and skill. Consideration is given to tablet triturates, mucilages, mixtures, and filling of capsules, cachets, collapsible tubes, etc. General instruction is given in the reading and interpretation of prescriptions, the recognition of the various constituents of their ingredients together with the proper methods and manner of dispensing them.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; U. S. *Pharmacopœia* and *National Formulary*.

Pharmacy 57-58—Dispensing pharmacy laboratory (for University sophomores). Laboratory course 3 hours, recitation 1 hour. 5 points. Professor H. M. CARTER and instructors.

This course is a continuation of the work in the dispensing laboratory of the first year involving thorough laboratory work and instruction in the preparation and dispensing of mixtures, adjusted solutions, pastilles, lamels, compressed tablets, powders, crayons, medicated gauzes, cottons, etc. During the second semester the laboratory practice deals particularly with the various phases of prescription dispensing, such as prescription writing and checking, labeling, wrapping, pricing, and delivery, etc.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; U. S. *Pharmacopœia* and *National Formulary*.

Pharmacy 59—Manufacturing pharmacy laboratory (for University sophomores). Laboratory course 4 hours, 16 weeks beginning September 21, 1932. 2 points. Professor H. M. CARTER and instructors.

This course deals with the manufacture of the more important pharmaceutical preparations of inorganic and organic nature thus giving laboratory practice and technique preliminary to the work of the manufacturing laboratory in the third year.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes*; U. S. *Pharmacopœia*.

Pharmacy 61-62—Commercial pharmacy (for University sophomores and second year College students). Lecture 1 hour, recitations 2 hours. 6 points. Professor F. D. LASCOFF.

This course in commercial pharmacy is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug store, including the choice of location, the elements of business administration and store manage-

ment, insurance, problems of retail merchandising, including the value of discounts, banking, principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will partially be devoted to the principles underlying the making and interpretation of these records.

Pharmacy 101-102—Theoretical pharmacy (for University juniors and third year College students). Lectures 2 hours, recitation 1 hour. 6 points. Professor C. P. WIMMER and instructors.

During the first semester, the study of the U. S. Pharmacopœia and National Formulary galenical preparations is continued and completed. Their methods of preparation are individually studied and the reasons for each step taken in their preparation are given. The second semester is devoted to the study of non-official important galenical, cosmetic and toilet preparations, as well as to the study of the pharmacy of individual substances used in prescriptions.

Textbooks: *U. S. Pharmacopœia; National Formulary V; American Pharmaceutical Association Recipe Book.*

Pharmacy 103-104—Theoretical dispensing pharmacy (for third year College students). Lectures 1 hour, recitation 1 hour. 4 points. Professor C. P. WIMMER and instructors.

This course is devoted in the main to the study of the problems encountered by the pharmacist in his prescription work. Prescriptions of all kinds, especially such as present some difficulties, are studied with the aid of lantern slides. The numerous incompatibilities of present-day prescription work are discussed, as well as ways of avoiding or overcoming them. The subject of homeopathy receives the attention it deserves.

Textbooks: Scoville, *The Art of Compounding*; Ruddiman, *Incompatibilities*.

Pharmacy 105—Manufacturing pharmacy laboratory (for third year College students). Laboratory course, 16 weeks (two sections alternating). 6 hours. 3 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The work of this course is a continuation of the first year. Many inorganic and organic pharmaceutical preparations and salts are manufactured. In addition, galenicals, toilet preparations, and hospital formulæ are compounded. Especial attention is given systematic training in the identification of many chemicals and galenicals official in the United States Pharmacopœia and National Formulary.

Textbooks: *U. S. Pharmacopœia; National Formulary; National Dispensary; The Pharmaceutical Recipe Book*; Dickman and Wimmer, *Pharmacy Notes*.

Pharmacy 106—Same as Pharmacy 105 but given during second half of the year.

Pharmacy 107-108—Dispensing pharmacy laboratory (for third year College students). Laboratory course, 4 hours. 4 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The work in the dispensing pharmacy laboratory deals particularly with the various phases of prescription dispensing, such as checking, labeling, pricing, and delivery, etc. The all-important subject of chemical, pharmaceutical, and therapeutical incompatibilities is thoroughly studied. The continual introduction of new remedies renders the subject of prescription incompatibilities a never-ending study, and it is the aim of this course to qualify its graduates to keep pace with discovery.

Textbooks: Ruddiman, *Incompatibles in Prescriptions*; Diekman and Wimmer, *Pharmacy Notes*.

Pharmacy 109-110—Pharmaceutical jurisprudence and business pharmacy (for University juniors and third year College students). Lectures 2 hours, recitation 1 hour. 6 points. Professor F. D. LASCOFF, Dr. I. NEUSTAEDTER, and visiting lecturers and instructors.

This course is designed to familiarize the student with the fundamentals underlying all law and also with the general provisions of Federal and state laws governing the practice of pharmacy. The various ordinances and regulations having local application will also be studied. Special attention is given to prohibition and anti-narcotic laws and regulations.

Lectures by practical business men will be a feature of the course. This series of lectures will give the student the principles of merchandising from a business man's viewpoint rather than from that of the pedagogue. These lectures, as well as those of the regular course, are aimed to give the student a better understanding of contemporary business problems.

Pharmacy 111—Practical pharmacy—manufacturing pharmacy laboratory (for University juniors). Laboratory 13 hours per week for 12 weeks beginning September 19, 1932. 5 points. Professor H. M. CARTER and instructors.

This course includes the manufacture of a number of the more difficult Pharmacopœial and National Formulary preparations, as well as of inorganic and organic medicinal remedies. The work is intended to qualify students for positions in pharmaceutical manufacturing establishments.

Textbook: Wimmer, *Manufacturing Pharmacy Notes*.

Pharmacy 113—Practical dispensing pharmacy (for University juniors). Laboratory 3 hours per week for 12 weeks beginning September 19, 1932. 1 point. Professor H. M. CARTER and instructors.

This course embraces a thorough study of the various types of incompatibilities. A large number of prescriptions are compounded which illustrate how some incompatibilities may be avoided or overcome.

Textbooks: Diekman and Wimmer, *Incompatibilities*; Ruddiman, *Incompatibilities in Prescriptions*.

Pharmacy 151-152—Advanced pharmacy (for University seniors). Lecture 1 hour. 2 points. Professor C. P. WIMMER.

This course is devoted to a detailed study of pharmaceutical, chemical, and biological assay methods of vegetable and animal drugs, as well as of methods for their identification. It includes the newer methods employed, such as the standardization of tannin-containing drugs by the agglutination test, of saponin-containing drugs by the determination of their haemolytic indices, etc.

A portion of the lecture course is devoted to a study of essential oils, while especial emphasis is laid upon official oils. Those of importance in the essential oil industry are included.

In a series of seminars, students are required to prepare and present before the professors and instructors in the department, papers on current topics of interest pertaining to pharmaceutical and allied sciences.

Textbooks: Fuller, *Analysis of Drugs and Medicines*; U. S. Pharmacopœia; National Formulary V; Gildemeister and Hoffman, *The Volatile Oils*.

Pharmacy 153-154—Pharmaceutical assaying (for University seniors). 8 weeks beginning January 23, 1933. Laboratory, 29 hours. 7 points. Professors C. P. WIMMER, H. M. CARTER, and instructors.

This course is intended to prepare the student for work as a drug analyst. The entire class carries out a proximate analysis of a vegetable drug. Individual problems in assay work of the most varied and difficult kind are assigned and the student is, to a considerable extent, left to his own resources. The work embraces assays of galenicals, flavoring extracts, toilet preparations, cosmetics, medicinal gauzes, etc.

Textbooks: Fuller, *Analysis of Drugs and Medicines*; Nelson, *Introduction to the Analysis of Drugs and Medicines*; *Current Literature*.

CULTURAL COURSES

English 1-2—English (for University freshmen). Lectures and recitations, 4 hours. 8 points. Mr. G. D. McJIMSEY.

This course aims to give collegiate instruction in the fundamentals of structure and style in both practical and imaginative writing.

History 1-2—American history (for University freshmen). Lectures and recitations, 3 hours. 6 points. Mr. ———.

After a brief survey of the planting of the English colonies in America, attention is centered on the revolt from British control, the political organization of the new nation, the rise of sectional controversy, and the war for Southern independence. Special emphasis is placed on the economic and social tendencies of the period since 1870.

Texts: Muzzey, *The United States of America*, 1 volume; Fox, *Atlas of American History*.

German 51-52—German (for University sophomores). Lectures and recitations, 5 hours. 10 points. Mr. A. H. INGENHUETT.

This is an introductory course in German.

Mathematics 101—Algebra (for University juniors). 3 hours. 3 points Winter Session. Mr. G. D. McJIMSEY.

This course begins with a review of selected topics from elementary algebra and then treats of permutations and combinations, determinants with applications to the solution of linear equations, complex numbers, theory of equations, with reference to the solution of numerical equations of higher degree and partial fractions.

Mathematics 102—Trigonometry (for University juniors). 3 hours. 3 points Spring Session. Mr. G. D. McJIMSEY.

The subject matter of this course includes the trigonometric functions, relations between the functions, functions of several angles, inverse functions, trigonometric equations, logarithms, and the solution of triangles.

Bibliography 151-152—Pharmaceutical bibliography (for University seniors). Lectures and conferences 1 hour, 2 points. Professor C. W. BALLARD.

This course will consist of lectures on the source books of chemistry, pharmacy, botany, and cognate sciences and on the periodical literature on the same subjects. At the conferences, special themes will be assigned to each student for research during spare hours.

THE GRADUATE COURSE

A graduate course of two full years' study in residence is open to graduates with the baccalaureate degree, conferred by this college or other schools of pharmacy maintaining equivalent courses of study. For the present, we are able to accommodate only two students majoring in each of the Departments of Chemistry, Materia Medica, and Pharmacy. Thirty hours' study weekly is required in the department in which the student is majoring, and three hours weekly in each of the other two departments. In the latter departments certain work is obligatory, although an option is allowed the student, between two or more schedules, as follows:

CHEMISTRY

Fifth Year

Option A—Lecture courses consisting of **Chemistry 201–202—Structural organic chemistry.** 2 hours. 4 points. Professor H. V. ARNY.

Chemistry 203–204—Synthesis of newer organic medicinal chemicals. 1 hour. 2 points. Professor H. H. SCHAEFER.

Option B—Laboratory work. **Chemistry 205—Experimental organic chemistry.** 2 periods weekly at 6 hours each during 8 weeks. 3 points. Professors H. V. ARNY and A. TAUB.

This course includes combustions and other organic analyses, molecular weight determinations and other such work as time permits.

Sixth Year

Option A—The same lecture courses offered to students of the fifth year, provided such courses have not already been offered as fifth year subjects.

Option B—**Chemistry 207—Advanced organic analysis.** 2 periods of 6 hours weekly during 8 weeks. 3 points. Professor H. C. KASSNER.

This course includes modern methods of organic radicles; the quantitative determination of elements and radicles not performed in previous years; and lastly, time permitting, special analytical methods such as electrometric titrations and the polarimetry of complex mixtures.

MATERIA MEDICA

Fifth Year

Option A—**Materia Medica 201—Analysis and determination of cryptogamous and phanerogamous plants.** Laboratory course, two periods weekly of 6 hours each during 8 weeks. 3 points. Professors H. H. RUSBY and F. HART.

Option B—**Materia Medica 203—Advanced bacteriology.** Laboratory and conferences, 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor F. HART.

The determination of types through special cultural and staining methods.

Option C—**Materia Medica 205—Food microscopy.** Laboratory and conferences, 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. W. BALLARD.

A systematic study of the various classes of foodstuffs in which adulteration can be determined by microscopical methods.

Sixth Year

Option A—(To be offered only if *Option A* of the fifth year has been carried. If not, that work will constitute *Option A* of the sixth year.) **Materia Medica 207—The literature and methods of research in vegetable taxonomy.** Conference and laboratory, two periods weekly of 6 hours each during 8 weeks. 3½ points. Professors H. H. RUSBY and F. HART.

Option B—Materia Medica 209—Bacteriology. Conference and laboratory, 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor F. HART.

The preparation of antitoxic products in media and their cultivation through animal experimentation.

Option C—Materia Medica 211—Chemical microscopy. Conference and laboratory, 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professors C. W. BALLARD and H. TAUB.

A study of the microchemical procedures involved in the use of the microscope as an aid in chemical analysis.

PHARMACY

Fifth Year

Option A—Pharmacy 201—Assay and analysis of official and non-official galenicals and other medicinally compounded preparations. Lectures and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. P. WIMMER.

Option B—Pharmacy 203—Manufacture, composition, and analysis of toilet preparations and cosmetics. Lectures and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. P. WIMMER.

Sixth Year

Option A—Pharmacy 205—Examination and analysis of incompatible mixtures with special reference to prescriptions. Laboratory work only. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. P. WIMMER.

Option B—Pharmacy 207—Examination and analysis of essential oils, flavoring extracts, and perfume materials. Lecture and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. P. WIMMER.

SUBMISSION OF THESIS

At least fifteen days before the first day on which University examinations are scheduled to be held, the candidate shall submit three finished copies of his or her thesis, in typewritten form, to the professor in whose department the candidate is majoring.

The awarding of the degree shall be dependent upon the approval of the thesis, and the results of an oral Faculty examination of the candidate.

SUMMER LABORATORY COURSES

These courses are designed to assist students who have failed at the spring examinations to prepare for those of the fall, and to provide instruction for special students in the use of the microscope, in the examination of drugs, and in pharmaceutical processes.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

SUMMER LABORATORY COURSES 1932

First, Second, and Third Year College Classes

June 6 to June 25—Department of Chemistry.

June 27 to July 16—Department of Materia Medica.

July 17 to August 6—Department of Pharmacy.

SUMMER LABORATORY COURSES 1933

First, Second, and Third Year College Classes

June 5 to June 24—Department of Chemistry.

June 26 to July 15—Department of Materia Medica.

July 17 to August 5—Department of Pharmacy.

UNIVERSITY CLASSES

University students failing in laboratory courses will be advised by the Registrar regarding the summer laboratory schedules.

EVENING COURSES

These courses of instruction, although they cannot be substituted for any of our regular work leading to degrees, have proven of great benefit to those who cannot attend during the day, and to those who desire to pursue special courses of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes.

Candidates may be admitted at any time during the course, at the discretion of the director of the course, but only those who have attended at least 80 per cent of all exercises and who pursue in a satisfactory manner the courses for which they are registered will receive certificates.

The courses are offered on Monday, Tuesday, and Friday of each week during the periods from Monday, October 3, 1932, to January 13, 1933, and from January 16, 1933, to Friday, May 5, 1933.

The Registrar's office will be open daily for registration from 10 a. m. to 4 p. m. and on Monday, Tuesday, and Friday evenings from 7 to 8 o'clock, during the first two weeks of each semester.

Fees are payable in advance and are not returnable. A registration fee of \$6 is required of each student in addition to the fees stated below.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

The following courses are offered:

DEPARTMENT OF CHEMISTRY

Evening Chemistry 1-2—Pharmaceutical qualitative analysis. 1 hour classroom and 2 hours laboratory each week. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:30-10:30 p. m.

Lecture: F., 7:30-8:20 p. m.

Laboratory: F., 8:30-10:30 p. m.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Evening Chemistry 3-4—Pharmaceutical qualitative analysis. 1 hour classroom and 2 hours laboratory work each week. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7-10 p. m.

Laboratory: F., 7-9 p. m.

Lecture: F., 9:10-10 p. m.

This course is a continuation of *Evening Chemistry 1-2* with particular reference to the U. S. P. tests for acid-ions. (Conditional on the enrollment of ten students.)

Evening Chemistry 5-6—Pharmaceutical volumetric analysis. 1 hour classroom and 2 hours laboratory work. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7-10:30 p. m.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Evening Chemistry 7—Examination of urine. First semester, 1 hour lecture and 2 hours laboratory work. Fee \$25; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:15-10:30 p. m.

Lecture: F., 7:20-8:20 p. m.

Laboratory: F., 8:30-10:30 p. m.

It should be noted that to qualify for "Director" of a laboratory, as defined by the Board of Health of the City of New York, a degree at least the equivalent of a B.S., is required.

In this course the qualitative and quantitative chemical tests of normal and pathological urine are studied; also the preparation and standardization of the necessary reagents. (Conditional upon the enrollment of twenty students.)

Evening Chemistry 8—Examination of urine. Second semester 1½ hours lecture and 2 hours laboratory work. Fee \$25; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:30-10 p. m.

Lecture: F., 7:30-8 p. m.

Laboratory: F., 8:20-10 p. m.

In this course, a continuation of *Evening Chemistry 7*, the gravimetric, polariscopic, colorimetric, and microscopic examination of urine is studied. (Conditional upon the enrollment of twenty students.)

Evening Chemistry 9-10—Newer remedies. 1 hour lecture each week throughout the year. Fee \$30. Professor H. H. SCHAEFER.

F., 8:30-9:30 p. m.

The aim of this course is to give the graduate pharmacist an opportunity to become familiar with the chemistry of many "recent" remedies generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given. Conditional on enrollment of twenty students.

DEPARTMENT OF MATERIA MEDICA

Evening Materia Medica 1-2—Principles and practice of bacteriology.

1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester; \$10 breakage deposit. Professor F. HART and assistants.

Tu., 7-10 p. m. Lectures: 7-8 p. m. Room 42, Pharmacy.

Laboratory: 8-10 p. m.

This course includes the bacterial examination of sputum, excreta, water, air, milk, and ice.

Special attention is given to the standard methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology, and staining properties leading to the identification of the more common pathogenic bacteria.

Conditional on the enrollment of ten students.

Evening Materia Medica 3-4—Blood analysis. 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester. Professor H. TAUB and assistants.

M., 7-10 p. m. Lecture: 7-8 p. m.

Laboratory: 8-10 p. m.

First semester: Preparation and study of blood smears in health and disease; total and differential counts; special pathology.

Second semester: Blood chemistry, including non-protein and urea nitrogen determinations, sugar, creatinin, uric acid, CO_2 —combining power, chlorides, calcium, cholesterol, and other constituents; hemoglobin estimation, coagulation time; establishing and operating a laboratory.

Conditional on the enrollment of ten students.

Evening Materia Medica 6—Parasitology. 1 hour lecture and 2 hours laboratory work each week, second semester. Fee \$40; \$10 breakage deposit. Professor F. HART and assistants.

Tu., 7-10 p. m.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods.

Conditional on the enrollment of 10 students.

Evening Materia Medica 7-8—Microbiology. 1 hour of lecture and demonstration each week throughout the year. Fee \$30. Professor F. HART.

M., 7:30-8:30 p. m.

This course includes the methods of manufacture, standardization, administration, and dosage of the commercial biological and bacteriological products and derivatives. Consideration is likewise given to the various methods of sterilization and disinfection as well as the principles of serology and immunology.

Conditional on enrollment of twenty students.

Evening Materia Medica 9-10—Pharmaceutical sundries. 1 hour lecture each week throughout the year. Fee \$30. Professor C. W. BALLARD.

M., 8:30-9:30 p. m.

While the retail pharmacist handles many items which are included under the general heading of sick-room supplies, he generally has little opportunity for systematic study of these articles and this is particularly true under present-day conditions. The object of this course of lectures is to acquaint him with the manufacture, differences and applications of bandaging and dressing materials, rubber sundries, glass and metal appliances, sutures and ligatures and the miscellaneous articles stocked in the average retail pharmacy and intended for physicians' or household use. The complicated and specialized types of surgical instruments and appliances will not be considered.

Conditional on enrollment of twenty students.

DEPARTMENT OF PHARMACY

Evening Pharmacy 1-2—Manufacturing pharmacy. 1½ hours lectures and 1½ hours laboratory work each week. Fee \$35 each semester. Professor L. N. BROWN and assistants.

Tu., 7:30-10:30 p. m.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail.

Conditional upon the enrollment of ten students.

Evening Pharmacy 3-4—Manufacture of cosmetics and toilet preparations. 1 hour lecture and 2 hours laboratory work each week. Fee \$35 each semester. Professor C. P. WIMMER and assistants.

Tu., 7:30-10:30 p. m. Main Lecture Hall.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face powders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured.

Conditional upon the enrollment of ten students.

A summary of the lecture topics will be furnished upon request.

Evening Pharmacy 5-6—Perfume materials and perfumery. 1 hour lecture and 2 hours laboratory work each week. Fee \$50 each semester. Professor C. P. WIMMER and assistants.

M. at 7 p. m. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprises the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included.

A summary of the course will be mailed upon request.

Conditional on the enrollment of ten students.

Evening Pharmacy 7-8—Ampuls and medicated units. 1 hour lecture each week. Fee \$30 entire course. Professor H. M. CARTER.

F., 7:30-8:30 p. m.

This course provides for the graduate pharmacist a thorough training in the principles of ampul medication both from the theoretical and practical viewpoints. Briefly, it considers the history, the advantages of parenteral administration, the forms and sizes of ampuls of American and foreign makes, together with the actual demonstration of ampul manufacture including glass blowing, filling, sealing, sterilization, etc. The National Formulary ampuls and products of various manufacturers are exhibited and discussed in detail paying strict attention to methods of packaging, storing and dispensing.

Conditional upon the enrollment of twenty students.

THE ALUMNI ASSOCIATION OF THE COLLEGE OF
PHARMACY OF THE CITY OF NEW YORK

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ENDOWMENTS

For one hundred and three consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler, and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and Trustees. At various times financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this Announcement, in addition to the College Course of three years, leading to the degree of Ph.G. there is now provided a University Course of four years, leading to the degree of B.S. in Pharmacy.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the College.

Since the actual instruction work of the College calls for the expenditures of our entire income received from students' fees, it follows that we are compelled, like other schools, to seek other sources of income for meeting unusual expenses.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

LIBRARY MAINTENANCE

The library facilities required by men engaged in advanced studies are necessarily much more extensive than those now provided by the College. The research work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.

APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to \$10,000 would admirably meet this demand.

MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or materia medica museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum properly comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the city and Federal departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquiries could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an encyclopedic knowledge of the subject, and qualified to pursue original researches. Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

ADDITIONAL PROFESSORSHIPS

The establishment of a number of lecture courses to be served by specialists in their respective subjects is an essential requisite in the work of the final years of an advanced course. Perhaps the most important of such subjects is the history of chemistry and pharmacy. The provision of even a short series of lectures would do much to point the way to investigation in the light of former achievement.

Those desiring to contribute toward any of the purposes named, or others in which they may be interested, will upon request be supplied with a form which may be used for the purpose.

REGISTER OF GRADUATES

BACHELORS OF SCIENCE IN PHARMACY, OCTOBER 28, 1931

Benjamin, Irving
R. F. D. No. 1, Bedford, N. Y.
Keilin, Harry
2800 Bronx Park East, New York, N. Y.
Massarsky, Solomon
16 Second Street, Weehawken, N. J.
Stephanou, Eli
33 Thames Street, Norwich, Conn.
(4)

PHARMACEUTICAL CHEMISTS, OCTOBER 28, 1931

Marcus, Irving
791 Troy Avenue, Brooklyn, N. Y.
Fauci, Stephen Antonio
1669 79th Street, Brooklyn, N. Y.
(2)

GRADUATES IN PHARMACY, OCTOBER 6, 1931

Boghosian, Paul Der
488 New York Avenue, Union City, N. J.
Braswell, James Leroy
265 Flatbush Avenue, Brooklyn, N. Y.
Capillo, Joseph Bruno
8717 94th Street, Woodhaven, N. Y.
Charlip, Abraham M.
583 Van Sicklen Avenue, Brooklyn, N. Y.
Dworkowitz, Jesse
420 Avenue S, Brooklyn, N. Y.
Geller, Isidore Benjamin
1218 Hoe Avenue, New York, N. Y.
Homer, Theodore Howard, Jr.
207 West 140th Street, New York, N. Y.
Horowitz, Samuel Louis
558 Vermont Street, Brooklyn, N. Y.
Williams, Clifford Albert
163 West 121st Street, New York, N. Y.
(9)

BACHELORS OF SCIENCE IN PHARMACY, JUNE 2, 1931

Betzer, Clifford William
194-54 One hundred and fourteenth Road,
St. Albans, N. Y.
Canepa, John Joseph
111 Anderson Avenue, Scarsdale, N. Y.
Carlat, Bernard
1914 East 18th Street, Brooklyn, N. Y.
Lichtenberg, Raymond
615 Hudson Street, Hoboken, N. J.

Nochimow, Eliezer

489 Willoughby Avenue, Brooklyn, N. Y.
Sadinsky, Hyman Benjamin
60 Maple Street, Norwich, Conn.
Schmid, Frederick William
Hillsdale Avenue, Hillsdale, N. J.
Seligman, Morris William
317 East 27th Street, New York, N. Y.
Stevens, Eli
1104 59th Street, Brooklyn, N. Y.
(9)

PHARMACEUTICAL CHEMISTS, JUNE 2, 1931

Cassano, Caesar
2147 Washington Avenue, New York, N. Y.
Chesler, Morris
4338 Gunther Avenue, New York, N. Y.
Cohen, Gertrude
93 Palisade Avenue, Hudson Heights, N. J.
Fehder, Paul
107-21 Union Hall Street, Jamaica, N. Y.
Feinberg, Solomon
2820 West 36th Street, Brooklyn, N. Y.
Goldberg, Meyer
1125 Noble Avenue, New York, N. Y.
Levsky, William Samuel
2818 Heath Avenue, New York, N. Y.
Lipschitz, Leo
7007 19th Avenue, Brooklyn, N. Y.
Mar, George Kaye
296 Ellen Street, Winnipeg, Manitoba,
Canada
Mehlsak, Harry Nathan
1985 Creston Avenue, New York, N. Y.
Merrig, Harry Louis
3568 North 163d Street, Flushing, N. Y.
Miller, Benjamin
91 Center Street, Ellenville, N. Y.
Orfuss, Abraham Jack
2920 West 27th Street, Brooklyn, N. Y.
Ronsheim, Julian
808 West End Avenue, New York, N. Y.
Schwartz, Israel Charles
3 Manitou Avenue, Poughkeepsie, N. Y.
Smith, Henry
8552 Park Pleasant Place, Jamaica, N. Y.
Vigdarowitz, Martin
65 East 99th Street, New York, N. Y.
(17)

GRADUATES IN PHARMACY, MAY 28, 1931

Abramson, Jacob
15 Stevens Street, White Plains, N. Y.

- Achiron, Harold
54 Lewis Avenue, Brooklyn, N. Y.
- Adelman, Rubin
761 Elton Avenue, New York, N. Y.
- Aloisi, Frank
1251 Ward Avenue, New York, N. Y.
- Anderson, Ometta Catharyn
706 Terrace Place, Muskogee, Okla.
- Armband, Max
75 East 4th Street, New York, N. Y.
- Arnowitz, Barnett
3127 Seymour Avenue, New York, N. Y.
- Avstreich, Albert
503 West 176th Street, New York, N. Y.
- Barile, Emerico
235 West 67th Street, New York, N. Y.
- Bateman, Edward Henry
36 North Street, Pulaski, N. Y.
- Bauer, Charles William
249 Post Avenue, Westbury, N. Y.
- Beghin, Frank A.
336 East 107th Street, New York, N. Y.
- Belfer, Samuel
413 Belmont Avenue, Newark, N. J.
- Berkowitz, Aaron Joseph
106 West 61st Street, New York, N. Y.
- Berlin, Joseph
106 Quincy Street, Passaic, N. J.
- Berliner, Meyer
6 Margot Place, Great Neck, N. Y.
- Bernstein, Sydney
2111 Hughes Avenue, New York, N. Y.
- Birdslow, Kent Bishop
Lacona, N. Y.
- Blank, George
20 East Gun Hill Road, New York, N. Y.
- Bloom, Albert Sidney
58 Fairmount Street, Norwich, Conn.
- Bloom, Isidore
708 East 6th Street, New York, N. Y.
- Bookstaber, Leo
32-42 33d Street, Long Island City, N. Y.
- Boxer, Louis
427 East 170th Street, New York, N. Y.
- Brown, Charles Lloyd
2054 Fletcher Avenue, Fort Lee, N. J.
- Buono, Joseph
30 Cornelia Street, New York, N. Y.
- Calabrese, Theodore Vincent
3719 Foster Avenue, Brooklyn, N. Y.
- Calleo, Nicholas Benjamin
22 Van Wort Place, Jersey City, N. J.
- Caprio, Ralph
140 Parker Street, Newark, N. J.
- Carpinelli, Michael Joseph
281 Linden Avenue, Jersey City, N. J.
- Carroll, Harry
570 Schenck Avenue, Brooklyn, N. Y.
- Caruso, Mario
491 Warren Street, Brooklyn, N. J.
- Cassera, Grace Leona
1531 68th Street, Brooklyn, N. Y.
- Catozzio, Peter
729 Adams Street, West New York, N. J.
- Cecere, Natale
431 28th Street, Woodcliff, N. J.
- Chefetz, Hyman Herman
540 East 5th Street, New York, N. Y.
- Chomsky, Isidore
1443 38th Street, Brooklyn, N. Y.
- Christmann, Frederick Walter
34 Oak Street, Valley Stream, N. Y.
- Cohen, Abe
2147 Washington Avenue, New York, N. Y.
- Cohen, Alexander
486 Kosciusko Street, Brooklyn, N. Y.
- Cohen, Charles
111 Tudor Place, New York, N. Y.
- Cohen, David
100 Wegman Parkway, Jersey City, N. J.
- Cohen, Frank
2216 Douglass Street, Brooklyn, N. Y.
- Cohen, Herman
1662 45th Street, Brooklyn, N. Y.
- Cohen, Joseph
110 Jersey Avenue, Port Jervis, N. Y.
- Cohen, Maximilian
61 East 99th Street, New York, N. Y.
- De Mucci, Frank Robert
40-36 97th Street, Corona, N. Y.
- Edelstein, Isadore
305 East Mine Street, Hazelton, Pa.
- Eichler, Julian
31-11 85th Street, Jackson Heights, N. Y.
- Eichner, Jerome
51 Farrington Street, Flushing, N. Y.
- Eicken, Nathan
180 Mercer Street, Jersey City, N. J.
- Eisenberg, Robert
1424 Parker Street, New York, N. Y.
- Epstein, Marvin Maurice
110 Walnut Street, Springfield, Mass.
- Epstein, Paul
72 Jackson Avenue, Jersey City, N. J.
- Evans, Max
364 Quincy Street, Brooklyn, N. Y.
- Feigelson, Irving
2838 West 19th Street, Brooklyn, N. Y.
- Fernberg, Irving Bernard
496 Cleveland Street, Brooklyn, N. Y.
- Ferrara, Vincent
1714 71st Street, Brooklyn, N. Y.
- Fialk, Robert
198 Hopkins Avenue, Jersey City, N. J.
- Fichiera, Michael
1511 Castlehill Avenue, New York, N. Y.

- Ficks, Jacob
8675 Bay 16th Street, Brooklyn, N. Y.
- Fishberg, Murray Leonard
153 Morton Place, New York, N. Y.
- Fitzer, Aaron
1166 Theriot Avenue, New York, N. Y.
- Fox, Jacob
162 Lee Avenue, Brooklyn, N. Y.
- Frank, Jacob
493 East 135th Street, New York, N. Y.
- Frankel, David
1156 Eastern Parkway, Brooklyn, N. Y.
- Frankel, Leonard Robert
764 Trinity Avenue, New York, N. Y.
- Frankel, Sidney
744 Hudson Avenue, West New York, N. J.
- Freed, Israel
285 Van Buren Street, Brooklyn, N. Y.
- Friedberg, Alexander
61 East 95th Street, New York, N. Y.
- Friedland, Peter Robert
3999 Dickinson Avenue, New York, N. Y.
- Gaal, Albert George
574 Manhattan Avenue, Brooklyn, N. Y.
- Garrambone, Carmelo Joseph
25-27 33d Street, Long Island City, N. Y.
- Gellis, Joseph
156 East 171st Street, New York, N. Y.
- Gerson, Alex
557 Kosciusko Street, Brooklyn, N. Y.
- Ginsberg, Asna Mendelevska (Mrs.)
53 West Tremont Avenue, New York, N. Y.
- Gise, Meyer
1862 Bay Ridge Parkway, Brooklyn, N. Y.
- Giuliani, Arthur J.
246½ Central Avenue, Union City, N. J.
- Glazer, Harry
1857 Washington Avenue, New York, N. Y.
- Glick, William Joseph
1694 Coventry Road, Cleveland, Ohio
- Gline, William
1701 Eastburn Avenue, New York, N. Y.
- Godlin, Abraham
Woodbourne, N. Y.
- Gold, Joseph
1434 Bryant Avenue, New York, N. Y.
- Goldstein, Martin
505 Bergen Avenue, Jersey City, N. J.
- Goldstein, Max
871 Longwood Avenue, New York, N. Y.
- Gottlieb, George
310 East 30th Street, New York, N. Y.
- Grant, Raymond Lorenzo
120 Wait Street, Ithaca, N. Y.
- Greenfader, Morris Benjamin
2223 62d Street, Brooklyn, N. Y.
- Gutes, Morris Charles
17-27 Van Sicklen Avenue, Brooklyn, N. Y.
- Halper, Arthur Matthews
555 Westminster Avenue, Elizabeth, N. J.
- Halper, Lewis
1208 Maple Avenue, Peekskill, N. Y.
- Halperin, Irving Max
419 Ocean Avenue, Jersey City, N. J.
- Hamann, George Peter Dietrich
398 Himrod Street, Brooklyn, N. Y.
- Hartman, Edward
123 Cornelia Street, Brooklyn, N. Y.
- Herbst, Arthur Stephan
342 East 77th Street, New York, N. Y.
- Hofmann, Henry Conrad
305 Dill Place, Brooklyn, N. Y.
- Horowitz, Alex
79 East 107th Street, New York, N. Y.
- Horowitz, Barnett
811 Avenue U, Brooklyn, N. Y.
- Hubbard, Earl Edmund
126 Second Avenue, Bay Shore, N. Y.
- Israel, Samuel
563 Bedford Avenue, Brooklyn, N. Y.
- Jacarus, John
150 Sullivan Street, New York, N. Y.
- Jacobs, Herman
296 Rochester Avenue, Brooklyn, N. Y.
- Jacobs, Meyer Jack
109 East Broadway, New York, N. Y.
- Jaffe, Max
Liberty, N. Y.
- Kaplan, Samuel
520 Medbury Avenue, Detroit, Mich.
- Kaufman, Michael Israel
636 East 13th Street, New York, N. Y.
- Kaufman, Sydney William
27 River Road, Fair Lawn, N. J.
- Keller, Murray
312 Madison Street, New York, N. Y.
- Kerewsky, Isidor
360 Garden Avenue, Mt. Vernon, N. Y.
- Koslowsky, Harry
1439 East 37th Street, Brooklyn, N. Y.
- Kramer, Benjamin
1143 Longfellow Avenue, New York, N. Y.
- Kugelmass, Samuel
155 South 4th Street, Brooklyn, N. Y.
- Lampert, Samuel
447 Powell Street, Brooklyn, N. Y.
- Last, Ben
286 Brooklyn Avenue, Brooklyn, N. Y.
- Lehrer, Morris
186 Riverdale Avenue, Brooklyn, N. Y.
- Lepard, Thomas Horley
270 Seaman Avenue, New York, N. Y.
- Levine, Hyman Israel
433 Rockaway Parkway, Brooklyn, N. Y.
- Levine, Jonas
2282 East 7th Street, Brooklyn, N. Y.
- Levine, Samuel
801 West 181st Street, New York, N. Y.

- Levitt, Morris
8950 Woodhaven Boulevard, Woodhaven,
N. Y.
- Lewitus, Richard
1517 Walton Avenue, New York, N. Y.
- Lipetz, Morris
Elton Avenue, Riverhead, N. Y.
- Lipschitz, Edward
236 East 82d Street, New York, N. Y.
- Liss, Max
327 East 20th Street, New York, N. Y.
- Lopez, Anacleto
418 West 36th Street, New York, N. Y.
- Loss, Margaret
1581 Fulton Avenue, New York, N. Y.
- MacCurran, James Francis
12 3d Street, Weehawken, N. J.
- McSharry, William
10 Dashby Court, Rockaway Beach, N. Y.
- Madansky, Nathan
2919 Jordan Street, Bayside, N. Y.
- Malmud, Mayer M.
4320 Sixteenth Avenue, Brooklyn, N. Y.
- Mancini, Thomas Anthony
316 East 29th Street, New York, N. Y.
- Marino, Frank Ermando
20-23 120th Street, College Point, N. Y.
- Marks, Edward Herman
400 East Raynor Avenue, Syracuse, N. Y.
- Mascellaro, Hector Edward
111 Taylor Street, Long Island City, N. Y.
- Matthes, Herbert Max
209 12th Street, College Point, N. Y.
- Megna, John
1080 Sutter Avenue, Brooklyn, N. Y.
- Mersel, Joseph
215 West 10th Street, New York, N. Y.
- Meyer, Morris
639 East 13th Street, New York, N. Y.
- Meyerson, Abraham
1041 Elder Avenue, New York, N. Y.
- Miller, Abraham
197 Van Buren Street, Brooklyn, N. Y.
- Miller, Benjamin
1347 40th Street, Brooklyn, N. Y.
- Mishler, Benjamin
52 Belmont Avenue, Brooklyn, N. Y.
- Monestersky, Morris
983 57th Street, Brooklyn, N. Y.
- Nelson, Isidore Ben
813 Centre Street, Bowling Green, Ky.
- Newer, Joseph George
1514 Lincoln Place, Brooklyn, N. Y.
- Ochitell, Morris
2921 West 36th Street, Brooklyn, N. Y.
- Oppenheim, Emanuel
4902 Fort Hamilton Parkway, Brooklyn,
N. Y.
- Palanzo, Charles Rocco
134 Willow Street, Yonkers, N. Y.
- Perry, Harold
123 Rockaway Parkway, Brooklyn, N. Y.
- Perry, Sidney
123 Rockaway Parkway, Brooklyn, N. Y.
- Perveler, Martin Leo
1710 Hoe Avenue, New York, N. Y.
- Petziner, Norman
1225 Seneca Avenue, New York, N. Y.
- Pomerantz, Max
150 East 2d Street, New York, N. Y.
- Ponticello, Francis Anthony
52 Council Street, Rochester, N. Y.
- Posner, Sidney
923 Fox Street, New York, N. Y.
- Razzo, Frances Mary Amelia
125 Second Avenue, New York, N. Y.
- Ricciardi, Ralph
1957 West 4th Street, Brooklyn, N. Y.
- Risch, Samuel Saul
3052 Lasalle Avenue, New York, N. Y.
- Riveles, George
63 East 100th Street, New York, N. Y.
- Riveles, Julius
725 East 9th Street, New York, N. Y.
- Rocco, Emilio John
27 St. Edwards Street, Brooklyn, N. Y.
- Rosenberg, Solomon
3340 71st Street, Jackson Heights, N. Y.
- Rosenberg, William Nathaniel
838 West End Avenue, New York, N. Y.
- Rothleder, Paul
2869 West 27th Street, Brooklyn, N. Y.
- Rubin, Paul
630 Garden Street, Hoboken, N. J.
- Rubenstein, Jack
299 Mt. Eden Avenue, New York, N. Y.
- Sacco, John G.
2 Ocean Avenue, Deal, N. J.
- Saia, Joseph John
7 Court Street, Astoria, N. Y.
- Savitch, Milton
334 East 15th Street, New York, N. Y.
- Schneider, Nathan
283 Liberty Avenue, Brooklyn, N. Y.
- Schwartz, Abraham
1533 Minford Place, New York, N. Y.
- Schwartz, Isadore
69 Liberty Place, Weehawken, N. J.
- Schwartz, Max
624 Hopkinson Avenue, Brooklyn, N. Y.
- Schwartz, Sidney
256 Rivington Street, New York, N. Y.
- Seidel, Leo
1561 West 11th Street, Brooklyn, N. Y.
- Seppi, Dominick
319 3d Street, Fairview, N. J.
- Shefkowitz, Julius L.
1203 Westchester Avenue, New York, N. Y.

- Silberman, Joel
585 East 169th Street, New York, N. Y.
- Silverman, Hyman
424 Chester Street, Brooklyn, N. Y.
- Simon, Irving Edward
878 East 176th Street, New York, N. Y.
- Simon, Moses Benjamin
137 Mansion Street, Poughkeepsie, N. Y.
- Small, Julius
1575 Madison Avenue, New York, N. Y.
- Snyder, Sol
45 Pinehurst Avenue, New York, N. Y.
- Soldo, Americo
419 East 160th Street, New York, N. Y.
- Stein, Irving
206 West 99th Street, New York, N. Y.
- Stein, Solomon Charles
1674 East 13th Street, Brooklyn, N. Y.
- Steir, Edward
172 East 7th Street, New York, N. Y.
- Strongin, Jack
1933 Union Street, Brooklyn, N. Y.
- Tabachnick, William
1709 Bathgate Avenue, New York, N. Y.
- Tannenbaum, Nathan
52 Bay 22d Street, Brooklyn, N. Y.
- Tenebra, Mary
4057 97th Street, Corona, N. Y.
- Tiersfeld, Nathan
14 East 108th Street, New York, N. Y.
- Tomashoff, Sidney
4502 Sixteenth Avenue, Brooklyn, N. Y.
- Tortora, Anthony
194 Cambridge Avenue, Jersey City, N. J.
- Uva, Nicholas
138 Sackman Street, Brooklyn, N. Y.
- Valenti, Joseph
378 Fulton Avenue, Jersey City, N. J.
- Van Beuren, John Horace
81 Chambers Street, Newburgh, N. Y.
- Vellensky, Bernard
1437 40th Street, Brooklyn, N. Y.
- Volpert, Bernard Leon
Newman P. O., Lake Placid, N. Y.
- Wagreich, Arthur
1216 Hoe Avenue, New York, N. Y.
- Waldinger, Solomon
150 Keap Street, Brooklyn, N. Y.
- Wallerick, Solomon
82 Columbia Street, New York, N. Y.
- Wart, Arthur Henry
Sandy Creek, N. Y.
- Washington, Mrs. Izetta L. A.
450 West 149th Street, New York, N. Y.
- Weinberg, Louis Joseph
45 West Boardwalk, Long Beach, N. Y.
- Weinstein, Morris
1546 East 172d Street, New York, N. Y.
- Weiss, Harold
140-29 Cherry Avenue, Flushing, N. Y.
- Weiss, Martin
1521 Madison Avenue, New York, N. Y.
- Weiss, Samuel
2162 Valentine Avenue, New York, N. Y.
- Welt, Morton
2056 74th Street, Brooklyn, N. Y.
- Wexlin, Hyman
1219 Rosedale Avenue, New York, N. Y.
- Wiesenfeld, Irving
957 Fox Street, New York, N. Y.
- Winer, Abe Marvin
440 East 6th Street, New York, N. Y.
- Wise, Fred
1726 Davidson Avenue, New York, N. Y.
- Yachnowitz, Louis
120 Ludlow Street, New York, N. Y.
- Zanca, Natale Louis
1320 Brook Avenue, New York, N. Y.
- Zanchelli, Gene Natalino
343 East 152d Street, New York, N. Y.
- Zimand, Philip
6318 Bay Parkway, Brooklyn, N. Y.

(217)

REGISTER OF STUDENTS, SESSIONS OF 1931-1932

FOURTH YEAR UNIVERSITY CLASS

- Blythe, Rudolph H. Roxbury, N. Y.
- Cook, Clayton M. Milford, N. Y.
- Fehder, Paul
107-21 Union Hall Street, Jamaica, N. Y.
- Mar, George K.
296 Ellen Street, Winnipeg, Manitoba,
Canada
- Pond, Frank N., Jr.
210 Hollywood Avenue, Douglaston, N. Y.

(5)

THIRD YEAR UNIVERSITY CLASS

- Armao, John A.
1024 Boston Road, New York, N. Y.
- Berg, Louis
2851 Webb Avenue, New York, N. Y.
- Brown, Reginald C.
1219 Union Avenue, New York, N. Y.
- Burch, Collingwood V. St. Georges, Bermuda
- Chasanowitz, Bernard
72 Sutter Avenue, Brooklyn, N. Y.

Clunie, J. Norman
 234 West 111th Street, New York, N. Y.
 D'Orazio, Robert R.
 767 East 237th Street, New York, N. Y.
 Door, Elinor Utley
 167 Carroll Place, Staten Island, N. Y.
 Freedman, Samuel
 69 East 105th Street, New York, N. Y.
 Ginsbergh, Rubin R.
 2095 Honeywell Avenue, New York, N. Y.
 Givens, Johnson B.
 6 Cottage Place, Freehold, N. J.
 Hamann, George P. D.
 378 Himrod Street, Brooklyn, N. Y.
 Heiko, Harold
 770 Grote Street, New York, N. Y.
 Hoeler, William J.
 99 Rose Terrace, Newark, N. J.
 Isacoff, Harry
 17 Pleasant Street, Somersworth, N. H.
 Kleinsinger, Bert
 2601 Jerome Avenue, New York, N. Y.
 Koller, Joseph Michael
 346 East 85th Street, New York, N. Y.
 Pfister, C. Leonard
 49 East 19th Street, Brooklyn, N. Y.
 Pozdena, Milton O.
 6805 Woodside Avenue, Winfield, N. Y.
 Sasmor, Ernest J.
 1274 Lafayette Avenue, New York, N. Y.
 Sher, Philip Benjamin
 280 Crown Street, Brooklyn, N. Y.
 Silver, Jason Harold
 6 North Eighth Avenue, Mt. Vernon, N. Y.
 Silver, Sidney
 937 East 181st Street, New York, N. Y.
 Vigilante, Ovidio Carl
 4121 Junction Boulevard, Corona, N. Y.
 Wight, Christian F.
 35 Greenwood Avenue, Bethel, Conn.
 Ziliotto, Enrico
 121-20 Liberty Avenue, Richmond Hill,
 N. Y.
 Zlinkoff, Bernard W.
 233 West 112th Street, New York, N. Y.
 (27)

SECOND YEAR UNIVERSITY CLASS

Burger, Irving
 170 Union Avenue, Peekskill, N. Y.
 Fertig, Tobias Thomas
 141 Carlton Avenue, Brooklyn, N. Y.
 Gabriel, Joseph, Jr.
 1647 Barnum Avenue, Bridgeport, Conn.
 Geller, Manuel
 1418 Longfellow Avenue, New York, N. Y.
 Gioia, Roland
 409 Monastery Place, Union City, N. J.

Goldman, Isidore
 331 Maple Avenue, Riverhead, N. Y.
 Granberg, Milda (Mrs.)
 169 Montgomery Street, Scarsdale, N. Y.
 Green, Alex
 155 East 94th Street, Brooklyn, N. Y.
 Gross, James Ernest
 720 North Montello Street, Brockton, Mass.
 Kessler, Nathan
 781 Fairmount Place, New York, N. Y.
 Kucker, Theodore D.
 1114 Magnolia Avenue, Elizabeth, N. J.
 Kupersmith, Libby
 260 Hillside Avenue, Leonia, N. J.
 Lizio, Joseph
 22-68 Crescent Street, Astoria, N. Y.
 Lyons, Nathan
 1673 74th Street, Brooklyn, N. Y.
 Mende, William C.
 34 Clifton Avenue, Clifton, N. J.
 Mont, Isadore
 Mohegan Colony, Peekskill, N. Y.
 Mucelli, Dante
 4031 Third Avenue, New York, N. Y.
 Ortega, Mario DeJ.
 34 Butler Place, Brooklyn, N. Y.
 Pisari, Louis Anthony
 53 Carlton Avenue, Brooklyn, N. Y.
 Pitocchi, Caroline Ellen
 1316 Bay Ridge Parkway, Brooklyn, N. Y.
 Schneider, William E. H., Jr.
 90 Engle Street, Englewood, N. J.
 Seltzer, Walter Maurice
 606 West 191st Street, New York, N. Y.
 Wackstein, Morris
 716 Cauldwell Avenue, New York, N. Y.
 (23)

FIRST YEAR UNIVERSITY CLASS

Barone, Angelo
 8645 Sixteenth Avenue, Brooklyn, N. Y.
 Biamonte, Alfred Robert
 257 Jersey Avenue, Cliffside Park, N. J.
 Devine, Peter J.
 189 Seeley Avenue, Arlington, N. J.
 Garizio, John E.
 94-11 Sixty-fifth Road, Forest Hills, N. Y.
 Godoff, Elliott
 4910 Seventeenth Avenue, Brooklyn, N. Y.
 Greenberg, William Jacob
 3346 Steuben Avenue, New York, N. Y.
 Grotsky, Julius
 1997 Douglass Street, Brooklyn, N. Y.
 Kaplan, Joseph
 79 West 55th Street, Bayonne, N. J.
 Levin, Julius R. D. 2, Englishtown, N. J.
 Lifschitz, Ruth
 145-02 88th Avenue, Jamaica, N. Y.

Lifshutz, Sidney
 24 Anable Avenue, Long Island City, N. Y.
 Loisel, Ernest J.
 239 River Street, Waterbury, Conn.
 Longyear, Robert
 489 East 34th Street, Brooklyn, N. Y.
 Maisel, Bernard Leo
 1018 East 163d Street, New York, N. Y.
 Megna, Michael
 1080 Sutter Avenue, Brooklyn, N. Y.
 Mencher, Gerald William
 556 Alabama Avenue, Brooklyn, N. Y.
 Pack, Isaac
 1781 East 10th Street, Brooklyn, N. Y.
 Rashmajian, Harry
 287 Sixth Avenue, Brooklyn, N. Y.
 Robinson, Clara Elizabeth
 43-06 159th Street, Flushing, N. Y.
 Siegel, Ida
 1024 Walton Avenue, New York, N. Y.
 Tiboni, Emil Angelo
 Diamond Lake Road, Glastonbury, Conn.
 Trentadue, Peter
 7 Welling Court, Long Island City, N. Y.
 Wanekski, Charles A.
 475 18th Street, Brooklyn, N. Y.
 Whipple, Ruth Ann
 79 Prospect Street, White Plains, N. Y.
 Wohlman, Ella
 853 Macy Place, New York, N. Y.
 (25)

THIRD YEAR COLLEGE CLASS

Anopol, Annie
 51 Hamilton Place, New York, N. Y.
 Aponofsky, Anna
 Broadway and Little Neck Road, Little
 Neck, N. Y.
 Avignone, Carlo J. Massapequa, N. Y.
 Badagliacca, Vincent
 130 George Street, Brooklyn, N. Y.
 Barbera, Anthony J.
 549 Henry Street, Brooklyn, N. Y.
 Bashevkin, Isaac
 1012 Rutland Road, Brooklyn, N. Y.
 Becker, Sidney S.
 2844 West 1st Street, Brooklyn, N. Y.
 Belitz, Morris
 501 West 175th Street, New York, N. Y.
 Bellet, Louis
 23-09 Astoria Avenue, Astoria, N. Y.
 Berkowitz, Efrem L.
 3242 Bedford Avenue, Brooklyn, N. Y.
 Bittar, Dewey
 5101 Sixth Avenue, Brooklyn, N. Y.
 Blick, Richard
 864 Troy Avenue, Brooklyn, N. Y.

Bologh, Sidney D.
 2358 84th Street, Brooklyn, N. Y.
 Burton, Samuel
 1471 St. Marks Avenue, Brooklyn, N. Y.
 Busch, David C.
 1215 Nielson Avenue, Far Rockaway, N. Y.
 Caso, A. Arthur
 1139 White Plains Road, New York, N. Y.
 Chadkin, Jason A.
 1012 49th Street, Brooklyn, N. Y.
 Chu, Kang
 10 Doyers Street, New York, N. Y.
 Cohen, Benjamin
 501 West 123d Street, New York, N. Y.
 Colarusso, Thomas G.
 22 Harrison Street, Mt. Vernon, N. Y.
 Coller, Gertrude Ethel
 840 Castleton Avenue, Staten Island, N. Y.
 Coller, Pearl
 840 Castleton Avenue, Staten Island, N. Y.
 Cosenza, Salvatore
 216 Union Street, Brooklyn, N. Y.
 Cowan, John Wesley
 244 Palmer Avenue, Mamaroneck, N. Y.
 Cozzolino, Sylvia R.
 564 East 191st Street, New York, N. Y.
 D'Arco, George D.
 85 North Elliott Place, Brooklyn, N. Y.
 DeAngelis, Dominick F.
 1160 63d Street, Brooklyn, N. Y.
 Diecidue, Ignatius
 249 Stanhope Street, Brooklyn, N. Y.
 Doctors, Albert
 98-08 Corona Avenue, Corona, N. Y.
 Emrich, Ralph
 115 Maine Avenue, West New Brighton,
 N. Y.
 Erwich, H. Irving
 11 Newin Street, Corona, N. Y.
 Febbraio, Edmund
 1877 Longfellow Avenue, New York, N. Y.
 Feinberg, Louis
 121 Dahill Road, Brooklyn, N. Y.
 Feitelberg, Morton
 2102 Morris Avenue, New York, N. Y.
 Florentino, Anthony
 1280 Bergen Street, Brooklyn, N. Y.
 Foley, Vincent
 908 Bloomfield Street, Hoboken, N. J.
 Friedman, Oscar
 2 Webster Avenue, Jersey City, N. J.
 Fromm, Kate
 1226 Sherman Avenue, New York, N. Y.
 Gershkowitz, Louis
 415 Powell Street, Brooklyn, N. Y.
 Glaser, Herman
 442 Throop Avenue, Brooklyn, N. Y.
 Glaser, Jacob J.
 177 Avenue C, New York, N. Y.

- Glick, Esther Central Valley, N. Y.
- Glotzer, Isadore George
1908 Prospect Avenue, New York, N. Y.
- Gnaizda, Samuel J.
93 Schenck Avenue, Brooklyn, N. Y.
- Goldberg, David
730 Sackman Street, Brooklyn, N. Y.
- Goldberg, Isidore George
2266 Church Avenue, Brooklyn, N. Y.
- Goodrich, Minnie
2070 Creston Avenue, New York, N. Y.
- Gordon, Jacob
572 Ralph Avenue, Brooklyn, N. Y.
- Granet, Morris
395 Powell Street, Brooklyn, N. Y.
- Greenfield, Benjamin
618 East 140th Street, New York, N. Y.
- Grenadir, Hyman D.
2232 Douglass Street, Brooklyn, N. Y.
- Guattery, Peter J.
181 Wickham Avenue, Middletown, N. Y.
- Gulli, Antoinette R.
7714 Sixteenth Avenue, Brooklyn, N. Y.
- Gumer, Max S.
274 Ormond Street, Rochester, N. Y.
- Haber, Alexander C.
1822 Mohegan Avenue, New York, N. Y.
- Handsman, Harry
564 Linden Boulevard, Brooklyn, N. Y.
- Harris, Harry
89 Fairview Avenue, New York, N. Y.
- Heiden, Eugenia
2028 Davidson Avenue, New York, N. Y.
- Heller, John A.
3 Oak Street, Poughkeepsie, N. Y.
- Henkin, Bernard
210 West 80th Street, New York, N. Y.
- Homnik, Jacob
645 East 6th Street, New York, N. Y.
- Hostomsky, Edward Alois
106-18 Twenty-seventh Avenue, East Elmhurst, N. Y.
- Izenberg, Leo
601 East 23d Street, Paterson, N. J.
- Jacobs, Frank
53 Mott Street, New York, N. Y.
- Jones, Herbert H.
317 49th Street, Union City, N. J.
- Kaplan, Jacob
989 Fox Street, New York, N. Y.
- Kessler, Nathan
227 Ashburton Avenue, Yonkers, N. Y.
- Ketcham, George V.
Box 467, Northport, N. Y.
- Kirschenbaum, Samuel
416 East 10th Street, New York, N. Y.
- Koretzky, Fanny
359 West 45th Street, New York, N. Y.
- Kristal, Myer
1682 Third Avenue, New York, N. Y.
- Kross, David T.
786 Bushwick Avenue, Brooklyn, N. Y.
- Le Blanc, Milton
78-15 Sixty-seventh Drive, Brooklyn, N. Y.
- Levy, Julius
2403 Creston Avenue, New York, N. Y.
- Levy, Sarah Ida
512 36th Street, Union City, N. J.
- Lubin, Sidney W.
1684 Dahill Road, Brooklyn, N. Y.
- MacIennan, Daniel G.
69 Memorial Place, Manhasset, N. Y.
- Maduri, Elizabeth Virginia
164 Washington Park, Brooklyn, N. Y.
- Mahler, Henry
745 East 175th Street, New York, N. Y.
- Mavrogianis, John G.
885 East 181st Street, New York, N. Y.
- Messina, Anthony P.
56-58 MacDougal Street, New York, N. Y.
- Milchman, David
167 Forbell Avenue, Brooklyn, N. Y.
- Mufson, Morris
523 Gregory Avenue, Passaic, N. J.
- Naliboff, Edward Murray
216 East 67th Street, New York, N. Y.
- Namiat, Morris
2025 59th Street, Brooklyn, N. Y.
- Nardozza, Joseph S.
413 Madison Street, Hoboken, N. J.
- Nelson, Lewis
813 Center Street, Bowling Green, Ky.
- Newman, Percy Kauneonga Lake, N. Y.
- O'Connor, Harry J.
2540 Humphries Street, East Elmhurst, N. Y.
- Padnis, Nathan
730 Oakland Place, New York, N. Y.
- Paley, Irving
58 Howard Avenue, Brooklyn, N. Y.
- Parrini, Arthur T.
1312 Avenue H, Brooklyn, N. Y.
- Pavone, Egidio
31 Mt. Hope Place, New York, N. Y.
- Perelzweig, Samuel
1766 57th Street, Brooklyn, N. Y.
- Pfeffer, Alfred A.
1177 Nelson Avenue, New York, N. Y.
- Photoglou, George
204 Manhattan Avenue, New York, N. Y.
- Pinck, Nathan
84 Henry Street, Passaic, N. J.
- Plotkin, Morris Louis
1201 Gilbert Place, New York, N. Y.
- Posner, Murray William
183 Varet Street, Brooklyn, N. Y.

- Pucillo, Nataleen V.
Box 311, Tuxedo Park, N. Y.
- Rabinowitz, Ephroim
142 West 112th Street, New York, N. Y.
- Rand, George
667 West 161st Street, New York, N. Y.
- Reddick, Aubert E.
115 Edgecombe Avenue, Apt. 3, New York, N. Y.
- Richman, Alexander
341 Vernon Avenue, Brooklyn, N. Y.
- Rocchio, Philip
108-20 Forty-eighth Avenue, Corona, N. Y.
- Rosen, Abraham
2109 Daly Avenue, New York, N. Y.
- Rosenberg, Hyman Fred
1530 Sheridan Avenue, New York, N. Y.
- Rosenberg, Mandel
6727 75th Street, Middle Village, N. Y.
- Roshkofsky, Jack
2077 East 12th Street, Brooklyn, N. Y.
- Rovira, Frank
24 West 112th Street, New York, N. Y.
- Ruggiero, William E.
49 Highland Terrace, Manhasset, N. Y.
- Safarik, Joseph J.
80 Grand Street, Springfield, Mass.
- Saks, Joseph Herman
396 Schenck Avenue, Brooklyn, N. Y.
- Salmeri, Frances Mary
1041 67th Street, Brooklyn, N. Y.
- Schansinger, Benjamin
7903 Sixty-eighth Road, Middle Village, N. Y.
- Schnaer, Abraham I.
473 Pennsylvania Avenue, Brooklyn, N. Y.
- Schweig, Harry Karl
1263 Fteley Avenue, New York, N. Y.
- Simon, Isidore
3154 Coney Island Avenue, Brooklyn, N. Y.
- Simon, Samuel
1535 Minford Place, New York, N. Y.
- Singer, Frank
1770 Grand Concourse, New York, N. Y.
- Soikin, David
1595 Macombs Road, New York, N. Y.
- Stein, Abraham
864 Troy Avenue, Brooklyn, N. Y.
- Steinhauer, Bernard
1240 44th Street, Brooklyn, N. Y.
- Ticktin, George Beverly
157 Christie Street, Toronto, Ontario, Canada
- Trovato, Michael Alexander
32-49 100th Street, Corona, N. Y.
- Umlas, Irving
1041 Bryant Avenue, New York, N. Y.
- Unger, Bernard
522 West 161st Street, New York, N. Y.
- Villone, Anna Rose
161 West 4th Street, New York, N. Y.
- Wagner, Morris
329 East 56th Street, New York, N. Y.
- Waugh, Theodore
79-34 Sixty-seventh Road, Middle Village, N. Y.
- Weiss, Harry
366 Riverdale Avenue, New York, N. Y.
- Weiss, Stanley Daniel
30 Fairview Avenue, New York, N. Y.
- Werst, Francis Bernard
906 Cottage Place, Union City, N. J.
- Winokur, Emanuel
577 Bushwick Avenue, Brooklyn, N. Y.
- Wishner, Jacob
222 Marcy Avenue, Brooklyn, N. Y.
- Wishny, Gilbert
88-92 East 111th Street, New York, N. Y.
- Wohl, Benjamin
174 Eldridge Street, New York, N. Y.
- Woien, David
1262 Brook Avenue, New York, N. Y.
- Wunsh, Theodore E.
1329 Fifth Avenue, New York, N. Y.
- Yarow, Harold
104-55 113th Street, Richmond Hill, N. Y.
- Yarvis, Samuel
490 Warwick Street, Brooklyn, N. Y.
- Youran, Morris
46 Fort Washington Avenue, New York, N. Y.
- Zeichner, Harold
1269 Noble Avenue, New York, N. Y.
- Zuckerman, Abe
360 Beekman Avenue, New York, N. Y.
- Zykorie, Emil
142 Ross Street, Brooklyn, N. Y.
- (145)

SECOND YEAR COLLEGE CLASS

- Adler, Nathan
201 Broad Street, Stapleton, N. Y.
- Alward, James Carlton
616 West 113th Street, New York, N. Y.
- Anderson, Lloyd
31 Cumberland Avenue, Verona, N. J.
- Antman, Herbert
2133 72d Street, Brooklyn, N. Y.
- Armentano, Joseph L.
3558 71st Street, Jackson Heights, N. Y.
- Baker, Samuel D.
53 Victory Boulevard, Tompkinsville, N. Y.
- Baumgarten, Harry M.
1513 39th Street, Brooklyn, N. Y.
- Bazilian, Jacob
954 Prospect Avenue, New York, N. Y.

- Beadle, Kenneth G.
158 Bruyer Avenue, Kingston, N. Y.
- Bennett, Frank
563 South Greenwich Avenue, Greenwich, Conn.
- Bernstein, Moses
766 Ninth Avenue, New York, N. Y.
- Bloom, David
284 East 53d Street, Brooklyn, N. Y.
- Bologh, Joseph
1416 Stebbins Avenue, New York, N. Y.
- Burano, John Ernest
403 East 100th Street, New York, N. Y.
- Byron, Grace Marie
224-23 Ninety-second Avenue, Queens Village, N. Y.
- Casey, Charles Burns Washingtonville, N. Y.
- Cerciello, Louis Joseph
22 Westervelt Place, Jersey City, N. J.
- Chu, James Hing
10 Doyers Street, New York, N. Y.
- Cohen, Elias
1824 McGraw Avenue, New York, N. Y.
- Cohen, Hymen
915 Elsmere Place, New York, N. Y.
- Cohen, Joseph
1050 Fox Street, New York, N. Y.
- Cooper, Morris
1069 Morris Park Avenue, New York, N. Y.
- Davidson, David
181 South Mill Street, Liberty, N. Y.
- Davis, David
1771 57th Street, Brooklyn, N. Y.
- Dobruskin, George
1548 Bryant Avenue, New York, N. Y.
- D'Onofrio, Rocco E.
107 Shotwell Park, Syracuse, N. Y.
- Edghill, Kenneth
68 West 139th Street, New York, N. Y.
- Englander, Milton
776 East 161st Street, New York, N. Y.
- Fasolino, Mario
111 North Regent, Port Chester, N. Y.
- Feeney, William J.
111-35 132d Street, Ozone Park, N. Y.
- Feldman, Philip Jesse
20 South Ninth Avenue, Mt. Vernon, N. Y.
- Ferraro, Joseph George
37 Spring Dell, Rutherford, N. J.
- Fish, Elias Edward
1311 Avenue K, Brooklyn, N. Y.
- Fisher, Arthur S.
701 Crotona Park North, New York, N. Y.
- Fleisch, Wolf
2136 Clinton Avenue, New York, N. Y.
- Friedman, Hyman
216 Rochester Avenue, Brooklyn, N. Y.
- Friedman, Michell
199 Van Buren Street, Brooklyn, N. Y.
- Frisch, Bernard
789 West End Avenue, New York, N. Y.
- Furman, Marcus
1438 42d Street, Brooklyn, N. Y.
- Gammer, Irving
1820 Belmont Avenue, New York, N. Y.
- Gettleman, Carl
2363 Valentine Avenue, New York, N. Y.
- Gevirtz, Hyman
2019A Bergen Street, Brooklyn, N. Y.
- Giuliano, Armida
2367 Prospect Avenue, New York, N. Y.
- Gold, Alex 105 Elm Street, Rocky Hill, Conn.
- Goldstein, Benjamin
871 Longwood Avenue, New York, N. Y.
- Goldstein, Maurice
120 Stockton Street, Hightstown, N. J.
- Gomez, Augusto Las Piedras, Porto Rico
- Goodkin, Harry
1059 Tiffany Street, New York, N. Y.
- Groetzky, Israel
262 Neptune Avenue, Brooklyn, N. Y.
- Grassi, Julius
67 Mill Street, Newburgh, N. Y.
- Green, William
1017 Intervale Avenue, New York, N. Y.
- Greenbaum, Jack
1425 Whythe Place, New York, N. Y.
- Guberman, Louis
1095 Boston Road, New York, N. Y.
- Gzibeck, Samuel
3107 84th Street, Jackson Heights, N. Y.
- Horowitz, David
220 Westervelt Avenue, New Brighton, N. Y.
- Kagle, Arthur
598 West 178th Street, New York, N. Y.
- Kahner, Paul
1348 Noble Avenue, New York, N. Y.
- Kaplan, Leo
946 East 181st Street, New York, N. Y.
- Katz, Abraham
219 East 121st Street, New York, N. Y.
- Katz, Philip
18 Van Cliff Street, Corona, N. Y.
- Kimber, George Henry
R. D. No. 2, Fayetteville, N. Y.
- Kluge, Sol J.
24 Bennett Avenue, New York, N. Y.
- Koblin, David C.
151 High Avenue, Nyack, N. Y.
- Koller, John
346 East 85th Street, New York, N. Y.
- LaRocca, Frank
139 East 4th Street, New York, N. Y.
- Lazar, Nathan
474 Jerome Street, Brooklyn, N. Y.
- Lefkowitz, Leo
2707 Barnes Avenue, New York, N. Y.

- Lettieri, Nunzi
 162 Schenectady Avenue, Brooklyn, N. Y.
 Levine, Sidney G. New Egypt, N. J.
 Levy, Morris M.
 1326 Ocean Parkway, Brooklyn, N. Y.
 McCaffrey, Edward
 56 Paris Road, New Hartford, N. Y.
 Maggio, Michael
 14 First Avenue, New York, N. Y.
 Maller, Julius
 704 Howard Avenue, Brooklyn, N. Y.
 Marchese, Justin R.
 591 St. Ann's Avenue, New York, N. Y.
 Marcus, Fred
 1230 Wheeler Avenue, New York, N. Y.
 Mariani, Yolanda
 3350 White Plains Avenue, New York, N. Y.
 Marturano, Philip S.
 856 West Dominick Street, Rome, N. Y.
 Mazlish, Abraham
 137A DeKalb Avenue, Jersey City, N. J.
 Messina, Joseph
 1314 Second Avenue, New York, N. Y.
 Milkowitz, Morris
 235 Roebling Street, Brooklyn, N. Y.
 Miller, Alfred
 327 Victory Boulevard, Staten Island, N. Y.
 Mintzer, Nathan
 130-01 One hundred and ninth Avenue,
 Richmond Hill, N. Y.
 Mitchell, Harry
 140 West 76th Street, New York, N. Y.
 Moskoff, Joseph William
 277 West 117th Street, New York, N. Y.
 Ostrofsky, Isidore
 323 Alabama Avenue, Brooklyn, N. Y.
 Pink, Abraham
 252 Highland Avenue, Passaic, N. J.
 Price, Sybil Louise
 25 St. Nicholas Avenue, New York, N. Y.
 Pushkin, George
 1691 Fulton Avenue, New York, N. Y.
 Raich, George Alfred
 83-46 118th Street, Kew Gardens, N. Y.
 Raskin, Nathan
 1523 Washington Avenue, New York, N. Y.
 Rauch, Irving H.
 46-48 Avenue B, New York, N. Y.
 Reid, Norman F.
 42-71 79th Street, Elmhurst, N. Y.
 Rose, Herbert H.
 222 Main Street, Highland Falls, N. Y.
 Rosenblatt, Raphael
 1785 Prospect Avenue, New York, N. Y.
 Santoriello, Nicholas
 184 Richardson Street, Brooklyn, N. Y.
 Sarner, Sam
 92 Ridge Street, New York, N. Y.
 Schneider, Moses
 1245 Findlay Avenue, New York, N. Y.
 Schneller, Michael
 408 East 158th Street, New York, N. Y.
 Scholefield, Lewis J., Jr.
 23 Ralph Street, Beacon, N. Y.
 Selvin, Murray L.
 36 Englewood Avenue, West Englewood,
 N. J.
 Shahon, Alexander
 1012 Voorhees Avenue, Brooklyn, N. Y.
 Siegel, Abraham
 512 E. Taylor Street, Syracuse, N. Y.
 Spanuello, Charles
 2887 Harrington Avenue, New York, N. Y.
 Spiegel, Martin
 587 Concord Avenue, New York, N. Y.
 Stack, Irving
 631 Edgecomb Avenue, New York, N. Y.
 Strassfeld, Solomon
 96 Willett Street, New York, N. Y.
 Tropia, Joseph
 245 East 39th Street, New York, N. Y.
 Truyol, Josefina
 Calimano Street, Guyama, Porto Rico
 Truyol, Rafaela
 Calimano Street, Guyama, Porto Rico
 Valenti, Anthony S.
 134 Grove Street, Brooklyn, N. Y.
 Vernava, Anthony
 134 White Street, New York, N. Y.
 Vinci, Thomas L.
 Highland Road, East Port Chester, Conn.
 Wahls, Henry A.
 8843 186th Street, Hollis, N. Y.
 Wait, Gretchen
 216 Grand Street, Newburgh, N. Y.
 Walter, Henry C.
 48 West 75th Street, New York, N. Y.
 Weinstein, Louis
 299 East 8th Street, New York, N. Y.
 Weissman, Theodore
 227 East Chester Street, Long Beach, N. Y.
 Wexler, Jacob
 431 Stafford Avenue, Syracuse, N. Y.
 Whitney, Edward H.
 172 Lander Street, Newburgh, N. Y.
 Wolfe, Solomon
 295 South 2d Street, Brooklyn, N. Y.
 Wolff, Max
 706 Riverside Drive, New York, N. Y.
 Wolinsky, William
 25 Crescent Street, Rutland, Vt.
 Zauderer, Isidor T.
 501 West 124th Street, New York, N. Y.
 (123)

FIRST YEAR COLLEGE CLASS

- Agovino, Alphonse F.
503 West 178th Street, New York, N. Y.
- Arida, William R.
560 44th Street, Brooklyn, N. Y.
- Asher, Arthur H.
830 Saratoga Avenue, Brooklyn, N. Y.
- Aumenta, Patrick J.
403 1st Street, Jersey City, N. J.
- Auriemma, Joseph J.
53 Greenville Avenue, Jersey City, N. J.
- Bellanca, Edi
7706 Fifteenth Avenue, Brooklyn, N. Y.
- Binder, Israel
570 West 189th Street, New York, N. Y.
- Blackman, Edward
540 Lenox Avenue, New York, N. Y.
- Brodkin, Jacob
34-35 98th Street, Corona, N. Y.
- Caruso, Anthony
491 Warren Street, Brooklyn, N. Y.
- Cassidy, William F.
754 Broadway, Newburgh, N. Y.
- Cerreta, Louis
417 East 116th Street, New York, N. Y.
- Chadabe, Sylvia C.
3631 East Tremont Avenue, New York, N. Y.
- Chodorov, Leo
233 East 5th Street, New York, N. Y.
- Ciccotto, Louis J.
308 East 39th Street, New York, N. Y.
- Clott, Samuel
190 Van Nostrand Avenue, Jersey City, N. J.
- Cohen, Jack
1280 Commonwealth Avenue, New York, N. Y.
- Cohen, Louis
1639 Fulton Avenue, Apt. 2D, New York, N. Y.
- Cohen, Noah
327 Stone Avenue, Brooklyn, N. Y.
- Connelly, Arthur G.
831 Park Avenue, Union City, N. J.
- Covert, Edward Vail
117 Chambers Street, Newburgh, N. Y.
- Daniels, Samuel
1981 Vyse Avenue, New York, N. Y.
- Deitchman, Joseph
1065 Boston Road, New York, N. Y.
- Denn, Herbert P.
319 Hamilton Avenue, Paterson, N. J.
- De Pedro, Reinaldo
1576 Taylor Avenue, New York, N. Y.
- Di Pasquale, Italo
1270 62d Street, Brooklyn, N. Y.
- Donner, Joseph
529 West 180th Street, New York, N. Y.
- Dresner, Max William
1657 Bathgate Avenue, New York, N. Y.
- Drobner, Harry T.
219 Henry Street, New York, N. Y.
- Ennico, Louis Edward
1521 Undercliff Avenue, New York, N. Y.
- Epstein, Hyman Julius
548 Court Street, Brooklyn, N. Y.
- Epstein, Morris
16 Elliot Place, New York, N. Y.
- Fader, Arnold
552 Riverside Drive, New York, N. Y.
- Falevitch, Max
440 East 121st Street, New York, N. Y.
- Fanto, Earl James
8 Ludlow Road, Fairfield, Conn.
- Feinberg, Harold
1020 Faile Street, New York, N. Y.
- Felberbaum, Alfred Samuel
327 Central Park West, New York, N. Y.
- Feldman, David Irving
1054 Manor Avenue, New York, N. Y.
- Fish, Sidney Jerome
1311 Avenue K, Brooklyn, N. Y.
- Fleming, Patrick Joseph
195 Prospect Park West, Brooklyn, N. Y.
- Fortunato, Vincent
16 West Union Street, Bay Shore, N. Y.
- Freilich, Jacob
205 East 78th Street, New York, N. Y.
- Fried, Max
1171 Sherman Avenue, New York, N. Y.
- Friedman, Bernard
1288 St. John's Place, Brooklyn, N. Y.
- Fulladosa, Joseph A.
22 Fort Hill Circle, St. George, N. Y.
- Gildenberg, Leon Phillip
581 Academy Street, New York, N. Y.
- Gold, Harry
1434 Bryant Avenue, New York, N. Y.
- Gordon, Philip
Phoenicia, N. Y.
- Gordon, Sidney
630 Concord Avenue, New York, N. Y.
- Gura, Theodore
2413 Morgan Avenue, New York, N. Y.
- Haff, John Floyd
North Broadway, Amityville, N. Y.
- Handel, Richard
1669 Park Avenue, New York, N. Y.
- Herbst, Joseph Paul
340 East 77th Street, New York, N. Y.
- Hill, William DeWitt, Jr.
72 Clinton Avenue, New Brighton, N. Y.
- Honigberg, Augusta Olga (Mrs.)
3406 45th Street, Astoria, N. Y.
- Jerome, Peter Ralph
10-19 Forty-seventh Road, Long Island City, N. Y.

- Kaminsky, Israel
 949 Tiffany Street, New York, N. Y.
 Kaplan, Harold
 868 Faile Street, New York, N. Y.
 Katzman, George
 298 Broome Street, New York, N. Y.
 Keylin, Sidney
 2141 Holland Avenue, New York, N. Y.
 Kline, Harold
 8 East Rockaway Road, Hewlett, N. Y.
 Klugman, Harry
 953 Tiffany Street, New York, N. Y.
 Kopinsky, Samuel
 351 Riverdale Avenue, Brooklyn, N. Y.
 LaScala, Vincenza Helene
 1704 Lexington Avenue, New York, N. Y.
 Lass, Herbert
 18-14 122d Street, College Point, N. Y.
 Lazarowitz, Irving Edward
 14-14 Grand Avenue, Astoria, N. Y.
 Leibowitz, Oscar Edward
 415 Columbus Avenue, New Haven, Conn.
 Lerner, Abraham S.
 2017 Vyse Avenue, New York, N. Y.
 Lesser, Harold J.
 2075 Grand Concourse, New York, N. Y.
 Levkov, Harry
 413 Central Avenue, Jersey City, N. J.
 Locurto, William
 212 Ralph Avenue, Brooklyn, N. Y.
 Lomazoff, Benjamin
 121 Lee Avenue, Brooklyn, N. Y.
 Lo Parco, Americo
 Box 405, Hawthorne, N. Y.
 Lovi, Aladar
 18 Terez Korut, Budapest, Hungary
 Luchen, Sydney
 1765 66th Street, Brooklyn, N. Y.
 Lutwick, Samuel
 168 East 95th Street, Brooklyn, N. Y.
 Mazza, Michael F.
 392 Spring Street, Long Branch, N. J.
 Meyerson, Solomon
 107 Van Buren Street, Brooklyn, N. Y.
 Miklean, Eli
 229 East 21st Street, New York, N. Y.
 Miller, Esther
 652 Broadway, Kingston, N. Y.
 Mininsohn, Sidney
 12 William Place, Maspeth, N. Y.
 Mitchell, Walter Lawrence
 34 Ashton Street, Charleston, S. C.
 Modero, Patrick
 260 1st Street, Hoboken, N. J.
 Murray, William A., Jr.
 25 High Street, Cold Spring, N. Y.
 Needleman, Louis
 539 Christopher Avenue, Brooklyn, N. Y.
 Oakley, Maurice James
 Briarcliff Manor, N. Y.
 Ossias, Sidney
 1755 Eastburn Avenue, New York, N. Y.
 Pape, Emil Thomas
 39-52 64th Street, Woodside, N. Y.
 Pisetznier, Sophie
 151 St. Ann's Avenue, New York, N. Y.
 Podolsky, Mortimer
 580 West 176th Street, New York, N. Y.
 Pollack, Harold
 2760 Grand Concourse, New York, N. Y.
 Pomerantz, George
 150 East 2d Street, New York, N. Y.
 Puma, Louis
 252 Stagg Street, Brooklyn, N. Y.
 Rafferty, William E.
 212 Main Street, Highland Falls, N. Y.
 Raisley, Amerigo John
 60 Button Street, West New Brighton, N. Y.
 Raymen, Morris
 419 West 115th Street, New York, N. Y.
 Reali, Theodore
 387 Sixth Avenue, New York, N. Y.
 Reichman, Albert L.
 336 Van Duzer Street, Stapleton, N. Y.
 Reiter, Saul
 1908 North 6th Street, Harrisburg, Pa.
 Renda, William
 646 East 84th Street, Brooklyn, N. Y.
 Renzulli, Vincent James
 278 Summit Street, Jersey City, N. J.
 Ristaino, Ralph Anthony
 308 Fourth Street, Jersey City, N. J.
 Rivelles, Vincent A.
 111-47 41st Avenue, Corona, N. Y.
 Rudick, Gertrude
 2182 Barnes Avenue, New York, N. Y.
 Sabino, James John
 145 West 100th Street, New York, N. Y.
 Sakofsky, Harold S.
 Florida, N. Y.
 Samuels, Charlotte
 1349 Stratford Avenue, New York, N. Y.
 Schneir, Moe
 437 Hopkinson Avenue, Brooklyn, N. Y.
 Schoychid, Sam
 1895 Walton Avenue, New York, N. Y.
 Schwartz, Aaron
 6417 Broadway, Woodside, N. Y.
 Schwartz, Alexander Edward
 215 East 12th Street, New York, N. Y.
 Schwartz, David
 1259 Longfellow Avenue, New York, N. Y.
 Schwartzberg, Solomon
 2033 62d Street, Brooklyn, N. Y.
 Siegal, Isidore
 610 West 141st Street, New York, N. Y.
 Siegel, Nathan
 62 Forsythe Street, New York, N. Y.
 Siegel, Philip
 62-64 Forsythe Street, New York, N. Y.

Silverman, Sam
 501 Bergen Avenue, Jersey City, N. Y.
 Singer, Isadore Arnold
 3165 Decatur Avenue, New York, N. Y.
 Soled, Samuel
 338 4th Street, Jersey City, N. J.
 Spanier, Henry
 117 Clymer Street, Brooklyn, N. Y.
 Starr, Joseph
 1373 Franklin Avenue, New York, N. Y.
 Stecher, Emanuel
 637 Sutter Avenue, Brooklyn, N. Y.
 Stefanelli, Anthony Stephen
 9401 101st Avenue, Ozone Park, N. Y.
 Stein, Nathan
 531 Gravesend Avenue, Brooklyn, N. Y.
 Stillman, David
 318 East 8th Street, New York, N. Y.
 Streiffer, S. Harold
 59 East 96th Street, New York, N. Y.
 Sullivan, John Lorenzo
 6 4th Street, Haverstraw, N. Y.
 Tanenbaum, Benjamin
 1988 Belmont Avenue, New York, N. Y.
 Taylor, Harold L.
 61 Line Street, Charleston, S. C.
 Thompson, Julia
 258 West 136th Street, New York, N. Y.
 Tucker, Henry
 138 West 30th Street, Bayonne, N. J.

Wagman, Jacob
 2911 Barnes Avenue, New York, N. Y.
 Walters, Ethel Chadabe
 3631 East Tremont Avenue, New York, N. Y.
 Wasserman, Milton J.
 2026 65th Street, Brooklyn, N. Y.
 Webb, James Lowe
 Hogansville, Ga.
 Wein, Reuben
 1452 Wilkins Avenue, New York, N. Y.
 Weintraub, Herman
 680 Beck Street, New York, N. Y.
 Wilensky, Joseph
 1943 66th Street, Brooklyn, N. Y.
 Wright, William George
 23 Ellis Avenue, Newburgh, N. Y.
 Wrobel, Morris
 1929 81st Street, Brooklyn, N. Y.
 Ya Deau, William Earl
 116 Henry Street, Palisades Park, N. J.
 Yakimoff, Frank Sheer
 Katonah, N. Y.
 Yawata, Richard
 444 McNeill Street, Honolulu, Hawaiian
 Islands
 (143)

SPECIAL STUDENT

Stuller, Daniel
 13 Grove Street, South Norwalk, Conn.
 (1)

SYNOPSIS OF UNIVERSITY COURSE STUDIES

SUBSEQUENT TO THE SESSIONS OF 1931-1932

First Year, 1932-1933 (see page 30)

Second Year (beginning with the session of 1933-1934)

	Class Hours	Laboratory Hours	Points
Inorganic chemistry (metals)	3	0	6
Analytical chemistry (basic and acidic ions)	0	3	3
Botany, plant morphology and histology	3	4 ½	10 ½
Zoölogy	1	2	4
Dispensing pharmacy	1	2	4
¹ English	2	0	4
German	4	0	8
Solid geometry	3	0	3
Plane trigonometry	3	0	3

Third Year (beginning with the session of 1934-1935)

Organic chemistry	3	0	6
Analytical chemistry (volumetric, pharmacopœial testing, and urine analysis)	0	18 ²	9
Macroscopic pharmacognosy	0	2	2
Human physiology and first aid	2	0	4
Bacteriology	2 ²	4 ²	4
Theory of pharmacy	2	0	4
Pharmaceutical Latin	1	0	2
Dispensing pharmacy	2	6 ²	5
Manufacturing pharmacy	0	4 ²	2
Pharmaceutical economics	1	2	4
German	2	0	4

Fourth Year (beginning with the session of 1935-1936)

Inorganic quantitative analysis	0	18 ²	9
Theories of chemistry	1	0	2
Biochemistry	1	0	2
Materia medica	4	0	8
Toxicology and posology	1 ½	0	3
Medical appliances	1 ²	0	1
Microscopic pharmacognosy	1 ²	3 ²	2 ½
Advanced physiology	1	0	2
Pharmaceutical jurisprudence and economics	1 ½	0	3
Manufacturing pharmacy	0	11 ²	5 ½
Theoretical and practical dispensing pharmacy	1	2	3
Theoretical pharmacy	3	0	6

² During 16 weeks.

ACADEMIC CALENDAR

1932

- June 6-Aug. 6. Summer Laboratory Courses.
- Sept. 7-9. Registration for first year candidates.
- 6-10. Supplementary Examinations.
- 14-15. Registration for second, third, and fourth year candidates.
- 19. Monday, One Hundred and Third Session begins. Second, Third and Fourth Year Classes assemble 9 a. m.
- 20. Tuesday, First Year Classes assemble 9 a. m.
- Oct. 3. Monday, Evening Courses start.
- Nov. 8. Tuesday, Election Day, Holiday.
- 24. Thursday, to November 26, Saturday, inclusive. Thanksgiving Holidays.
- Dec. 22. Thursday, to

1933

- Jan. 3. Tuesday, inclusive, Christmas Holidays.
- 4. Wednesday, Sessions resumed.
- 16-21. Mid-Year Examinations.
- 23. Monday, Second Semester, Evening Courses start.
- Feb. 13. Monday, Lincoln's Birthday, Holiday.
- 22. Wednesday, Washington's Birthday, Holiday.
- Apr. 3. Monday, All classes. Last day for applying for final examinations with payment of fee.
- 14-15. Spring Holiday.
- May 5. Friday, Evening Courses close.
- 8-15. Final Examinations, First, Second, and Third year College and University Classes.
- 15-17. Final Examinations, Senior University Class.
- 24. Wednesday, First and Second Year Exercises (Alumni Day).
- 25. Thursday, College Commencement.
- June 6. Tuesday, University Commencement.

SCHEDULE OF EXAMINATIONS

Supplementary Examinations

FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1932

- Sept. 6. Tuesday, 9-12, *Phr.* 1-2, Pharmacy.
- 7. Wednesday, 9-12, *Chm.* 3-4, Chemistry.
- Wednesday, 2-5, *Chm.* 1-2, Physics.
- Sept. 8. Thursday, 9-12, *M.M.* 1-2, Botany.
- Thursday, 9-12, *M.M.* 5-6, Posology.
- Thursday, 2-5, *Eng.* 1-2, English.
- Thursday, 2-5, *Hist.* 1-2, American government.

SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 6. Tuesday, 9-12, *Phr.* 51-52, Theoretical pharmacy.
 Tuesday, 2-5, *Phr.* 61-62, Commercial pharmacy.
 7. Wednesday, 9-12, *Chm.* 55-56, Inorganic chemistry.
 Wednesday, 2-5, *Phr.* 53-54, Pharmaceutical Latin.
 8. Thursday, 9-12, *M.M.* 57-58, Physiology.
 Thursday, 9-12, *M.M.* 59-60, Microbiology.
 Thursday, 2-5, *Ger.* 51-52, German.

THIRD YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 6. Tuesday, 9-12, *Phr.* 101-102, Theoretical pharmacy.
 Tuesday, 2-5, *Phr.* 107-108, Dispensing pharmacy.
 Tuesday, 2-5, *Math.* 101-102, Mathematics.
 7. Wednesday, 9-12, *Chm.* 103-104, Organic chemistry.
 Wednesday, 2-5, *Chm.* 101-102, Theories of chemistry.
 Wednesday, 2-5, *Chm.* 107-108, Newer remedies.
 8. Thursday, 9-12, *M.M.* 101-102, Materia medica.
 Thursday, 2-5, *M.M.* 103-104, Toxicology.
 Thursday, 2-5, *M.M.* 109-110, Pharmacal sundries.
 9. Friday, 9-12, *Phr.* 109-110, Jurisprudence and business pharmacy.

FOURTH YEAR UNIVERSITY CLASS

- Sept. 6. Tuesday, 2-5, *Phr.* 151-152, Advanced pharmacy.
 7. Wednesday, 9-12, *Chm.* 153-154, Food analysis and toxicology.
 Wednesday, 2-5, *Chm.* 151-152, Inorganic quantitative analysis.
 Wednesday, 2-5, *Chm.* 155-156, Biological chemistry.
 8. Thursday, 9-12, *M.M.* 155-156, Physiology.

Mid-Year Examinations and Tests

1933

- Jan. 16-21. A schedule of these examinations and tests will be posted on the bulletin boards. Students not in residence should consult the Registrar for information regarding them.

Final Examinations

FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1933

- May 9. Tuesday, 9-12, *M.M.* 1-2, Botany.
 Tuesday, 9-12, *M.M.* 5-6, Posology.
 Tuesday, 2-5, *Chm.* 3-4, Inorganic chemistry.
 11. Thursday, 9-12, *Chm.* 1-2, Physics.
 Thursday, 2-6, *Phr.* 1-2, 4, 5-6, Pharmacy, arithmetic, history and ethics.
 13. Saturday, 9-12, *Eng.* 1-2, English.
 Saturday, 9-12, *Hist.* 1-2, American history.

SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- May 8. Monday, 9-12, *Phr.* 51-52, Theoretical pharmacy.
Monday, 2-5, *M.M.* 57-58, Physiology.
Monday, 2-5, *M.M.* 59-60, Microbiology.
10. Wednesday, 9-12, *Chm.* 55-56, Inorganic chemistry.
11. Thursday, 9-12, *Ger.* 51-52, German.
12. Friday, 9-12, *Phr.* 61-62, Commercial pharmacy.
Friday, 2-5, *Phr.* 53-54, Pharmaceutical Latin.

THIRD YEAR COLLEGE AND UNIVERSITY CLASSES

- May 8. Monday, 9-12, *Chm.* 103-104, Organic chemistry.
Monday, 2-5, *Chm.* 107-108, Newer remedies.
9. Tuesday, 9-12, *Chm.* 101-102, Theories of chemistry.
Tuesday, 2-5, *Math.* 101-102, Mathematics.
10. Wednesday, 9-12, *Phr.* 101-102, Theoretical pharmacy.
Wednesday, 2-5, *Phr.* 109-110, Jurisprudence and business pharmacy.
12. Friday, 9-12, *M.M.* 101-102, Materia medica.
Friday, 2-5, *M.M.* 103-104, Toxicology.
Friday, 2-5, *M.M.* 109-110, Medical appliances and first aid.
15. Monday, 9-12, *Phr.* 103-104, Dispensing pharmacy.

FOURTH YEAR UNIVERSITY CLASS

- May 15. Monday, 9-12, *Phr.* 151-152, Pharmacy.
Monday, 1-4, *Chm.* 151-152, Inorganic quantitative analysis.
16. Tuesday, 9-12, *Chm.* 153-154, Food analysis and toxicology.
17. Wednesday, 9-5, *Chm.* 155-156, Biological chemistry.
Wednesday, 9-5, *M.M.* 155-156, Physiology.

Columbia University

BULLETIN OF INFORMATION

Thirty-third Series, No. 48

August 26, 1933

ANNOUNCEMENT OF THE

COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1933-1934



113-119 WEST 68TH STREET
NEW YORK

Columbia University Bulletin of Information

Thirty-third Series, No. 48

August 26, 1933

Issued weekly at Columbia University, Morningside Heights, New York, N. Y. Entered as second-class matter August 10, 1918, at the Post Office at New York, N. Y., under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

1. Reports of the President and Treasurer to the Trustees.
2. The Catalogue Number, the Directory Number and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C.U.P.—19,300—1933.

For special or more detailed information than is given in this Announcement, applicants are requested to address the Registrar of the College, 113 West 68th Street. His office hours are as follows: From September 1, 1933 to June 1, 1934, daily except Saturdays, 9 a.m. to 5 p.m.; Saturdays, 9 a.m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a.m. to 4 p.m.; Saturdays, 9:30 a.m. to 12 m.

Columbia University

in the City of New York

ANNOUNCEMENT OF THE

COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1933-1934



113-119 WEST 68TH STREET
NEW YORK

This college reserves the right to make such changes in the curriculum, schedule, calendar, and regulations appearing in this Announcement, as circumstances may require.

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1933

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
Jan.	1	2	3	4	5	6	7	May	1	2	3	4	5	6		Sept.	1	2	3	4	5	6	7	
	8	9	10	11	12	13	14		7	8	9	10	11	12	13		8	9	10	11	12	13	14	
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1934

Jan.	..	1	2	3	4	5	6	May	..	1	2	3	4	5	Sept.	..	1	2	3	4	5	6	7	8	
	7	8	9	10	11	12	13		6	7	8	9	10	11		12	2	3	4	5	6	7	8		
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	28	29	30	31	..	..	..		27	28	29	30	31	..		..	23	24	25	26	27	28	29	30	
Feb.	..	..	..	..	1	2	3	June	..	..	..	..	1	2	Oct.	..	1	2	3	4	5	6	7	8	
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1935

Jan.	..	1	2	3	4	5		May	..	1	2	3	4		Sept.	1	2	3	4	5	6	7	
	6	7	8	9	10	11	12		5	6	7	8	9	10	11		8	9	10	11	12	13	
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	27	28	29	30	31	..	..		26	27	28	29	30	31	..		29	30	..	..	..	..	
Feb.	..	..	..	1	2	..	..	June	..	..	..	..	1	2		Oct.	..	1	2	3	4	5	..
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	28	29	30	..	..	..	..		25	26	27	28	29	30	31		29	30	31	..	..	..	

OFFICERS AND TRUSTEES

OFFICERS

NICHOLAS MURRAY BUTLER	<i>President</i>
WILLIAM J. SCHIEFFELIN	<i>Honorary President</i>
HENRY C. LOVIS	<i>Honorary Vice-President</i>
EDWARD PLAUT	<i>First Vice-President</i>
V. CHAPIN DAGGETT	<i>Second Vice-President</i>
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FREDERICK K. JAMES, 1935	AUGUST WASSERSHEID, 1936
IRVING McKESSON, 1935	

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EDWARD PLAUT

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GEORGE C. DIEKMAN, Ph.G., M.D.	<i>Secretary</i>

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HENRY H. RUSBY, M.D., Ph.M., Sc.D.	<i>Professor Emeritus of Materia Medica</i>
HENRY V. ARNY, Ph.D., Ph.M.	<i>Professor of Chemistry</i>
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CHARLES W. BALLARD, Phar.D., Ph.D.	<i>Professor of Materia Medica</i>
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FREDERICK D. LASCOFF, Ph.G., A.B.	<i>Assistant Professor of Pharmacy in Charge of Commercial Pharmacy</i>
JACOB S. DORFMAN, Ph.G., A.M.	<i>Assistant Professor of Pharmacy</i>
ABRAHAM TAUB, B.S. (Phar.), A.M.	<i>Assistant Professor of Physics and Chemistry</i>
LESLIE JAYNE, B.S. (Phar.)	<i>Assistant Professor of Chemistry</i>

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FRANK POKORNY, Ph.Ch., B.S.	<i>Instructor in Materia Medica</i>
JOSEPH P. MIALE, Ph.Ch., B.S.	<i>Instructor in Pharmacy</i>
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HORACE T. F. GIVENS, B.S. (Phar.)	<i>Instructor in Chemistry</i>
ROBERT A. STAUBER, B.S. (Phar.)	<i>Instructor in Materia Medica</i>

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ARTHUR H. INGENHUETT, A.M.	<i>Lecturer in German</i>
DENTON R. BEDFORD, M.S.	<i>Lecturer in History</i>
DAVID SOLE, A.B.	<i>Lecturer in Mathematics</i>
ARTHUR W. POLLISTER, Ph.D.	<i>Lecturer in Zoölogy</i>

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ADAM LEROY JONES, Ph.D., Litt.D.	<i>Director of University Admissions</i>
CHARLES C. WILLIAMSON, Ph.D., Litt.D.	<i>Director of University Libraries</i>
ROGER HOWSON, M.A.	<i>Librarian</i>
DAVID M. UPDIKE, M.E.	<i>Superintendent of Buildings and Grounds</i>
CHARLES W. BALLARD, Ph.Ch., A.M., Ph.D.	<i>Librarian of the College of Pharmacy</i>
EDWARD J. GRANT, A.B.	<i>Registrar of the University</i>
CHARLES S. DANIELSON	<i>Bursar of the University</i>
HENRY LEE NORRIS, M.E.	<i>Director of Works</i>
CLARENCE E. LOVEJOY, A.B.	<i>Alumni Secretary</i>

COLUMBIA UNIVERSITY

Columbia University was founded in 1754 as King's College by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the College of Physicians and Surgeons with courses leading to the degrees of Doctor of Medicine and Master of Science; the School of Engineering, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degree of Bachelor of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degree of Doctor of Dental Surgery; the School of Library Service, with courses leading to the degrees of Bachelor of Science and Master of Science; Seth Low Junior College offering two and three years of collegiate work in preparation for admission to professional schools or to more advanced work in liberal arts and sciences in Columbia University; the non-professional Graduate Faculties of Political Science, Philosophy, and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy.

In addition to these schools and faculties, the University includes the independent corporations of Barnard College (1889), the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College (1898), including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science, and New College with courses leading to the degree of Bachelor of Science; the College of Pharmacy of the City of New York (1904), with courses leading to the degrees of Bachelor of Science and Doctor of Pharmacy; St. Stephen's College, Annandale, New York (1928), an undergraduate college for men with courses leading to the degree of Bachelor of Arts; Union Theological Seminary (1928), whose faculty conducts certain University work leading to the degree of Master of Arts; and the New York Post Graduate Medical School (1931), which offers advanced work in medicine.

The University maintains three sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree. Home Study courses are also offered to persons who are unable to take work in residence.

STUDENTS

A student who has fulfilled the preliminary qualifications for candidacy for a degree, certificate, or diploma in regular course is enrolled as a matriculated student of the University. Acceptance is based on grounds of character and health as well as on the fulfillment of academic requirements. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic requirements which may be fulfilled only upon days set apart by their church for religious observance should make application to the appropriate authority for equitable relief.

In exceptional circumstances a student not enrolled as a matriculated student may be admitted to the University as a non-matriculated student with permission to attend such courses of instruction as he is qualified to take but not as a candidate for a degree, certificate, or diploma in regular course. Non-matriculated students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive formal statement of the satisfactory completion of any course.

ACADEMIC DISCIPLINE

The continuance of each student upon the rolls, the receipt by him of academic credits, his graduation, or the conferring of any degree or the granting of any certificate are strictly subject to such exercise of the disciplinary power of the University as may be necessary to enforce the rules of the University and to maintain standards of personal conduct and character acceptable to the University. In the exercise of academic discipline, the student's conduct outside as well as inside the University will be taken into consideration. The disciplinary authority of the University is vested in the President in such cases as he deems proper, and subject to the reserve powers of the President, in the Dean of each Faculty and the Director of the work of each Administrative Board.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar immediately.

The Dean of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The Announcements of each college or school, of the Summer Session, of University Extension, and of the several divisions under which the departments of

instruction are grouped, may be obtained without charge from the Secretary of the University.

The Announcement of each school contains a schedule of fees and expenses for the courses in that school.

LIBRARY

The Library of the University contains about 1,350,000 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture rooms and laboratories. The Avery Architectural Library, the law library, the Ella Weed Library of Barnard College, Teachers College library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

PUBLIC LIBRARIES

Students may use any of the public libraries of Greater New York. The central library building of the New York Public Library at Fifth Avenue and 42d Street, houses one of the great reference libraries of the country, containing nearly 2,000,000 volumes and including much material not found in the University Library. Books in the reference department of that library may be used only within the building. Because of crowded conditions students are expected to do their work in the University libraries. However, if material needed by a graduate student is not in the University Library, he should take a card from his departmental librarian to the Public Library. Books in the central circulation branch (42d Street entrance) and in other branches may be borrowed for home use by students who obtain a Public Library card. A sub-branch of the Public Library is maintained in Room 108A of the Columbia University Library. Other branches in the vicinity of the University are: West 115th Street, near Seventh Avenue; West 100th Street, near Amsterdam Avenue; and George Bruce Branch, 518 West 125th Street.

RESIDENCE HALLS

All students registered within the University regularly pursuing their courses of study are eligible for residence in University Residence Halls. The University desires its students to live whenever possible in the Residence Halls which are a part of the educational development and life of Morningside Heights. These Halls, owned and controlled by the University, are located on or immediately adjacent to the Campus, afford easy access to library and laboratories, and should provide for students companionship with persons of like interest. Within several of the Residence Halls and in the University Commons, dining rooms are maintained by the University and administered by skilled dieticians. Infirmaries are maintained for the exclusive use of students in the Residence Halls. Assignment of room is made on the academic year basis but rentals may be paid on session, monthly, or in case of need, weekly basis.

Application blanks for rooms and copies of Residence Halls Announcements, giving floor plans and dormitory regulations, will be furnished on request by the Secretary of the University, 213 Library.

Residence for Men

Residence for men may be had in Fernald Hall where a majority of the residents are graduate students or members of the Law School, or in John Jay Hall in which students from all the schools of the University find residence, or in Livingston Hall primarily a graduate dormitory, or in Hartley Hall primarily an undergraduate dormitory. Rates for single rooms within these dormitories for the academic year range from \$128 to \$270; for the calendar year, from \$185 to \$295.

A special provision has been made for a low rate for such students as care to share their rooms. Four men are assigned to three rooms. Two rooms are used for bedrooms and one room for a study. The rate for each man is four dollars a week.

Students desirous of group residence within the University Halls are encouraged to carry out these plans in furtherance of the general policy of the University that University Residence Halls should in every way promote the social and academic life of its students.

A dining room and a grill are maintained in John Jay Hall. While these dining rooms are open to all members of the University they are used primarily by the men in residence on South Quadrangle. Meals are served at a fixed price and *à la carte*. Meals at fixed price may be had for \$7.65 per week.

The University infirmary for men is located on the top floor of John Jay Hall. The services of the infirmary are exclusively available to residents of the dormitories.

Residence for Women

Graduate and professional women within the University live in Johnson Hall where rooms and dining hall give admirable opportunity for group life. Ample social rooms are provided. The rates for single rooms in Johnson Hall are from \$190 to \$310 for the academic year. The rate for meals is \$7.00 per week for breakfast and dinner.

The University infirmary for women is located on the top floor of Johnson Hall. The services of the infirmary are exclusively available to residents of the dormitories.

Grants in aid are available for students under certain circumstances and assist materially in the reduction of the rates for the students who receive such aid.

Bard Hall

At the Medical School the University maintains in Bard Hall a Residence Hall with dining hall facilities for men and for women.

Residence in Barnard College and Teachers College

Barnard College maintains dormitories for undergraduate women. When space is available graduate women, particularly when graduates of Barnard College, will be received in residence. Dining facilities are provided for students in Barnard College.

Teachers College maintains five Residence Halls. In Whittier Hall rooms and dining facilities are offered for women students. In Seth Low Hall rooms without dining facilities are offered women students. Bancroft Hall, Grant Hall, and

Sarasota Hall contain apartments in which housekeeping can be carried on and which are especially adapted for the use of married students.

INTERNATIONAL HOUSE

Men and women students registered in colleges and schools within New York City, particularly students from foreign lands, find at International House, located near the University and under the control of its own Board of Trustees, a residence with dining facilities.

RESIDENCE BUREAU

Students who find it necessary to live outside of the University may obtain lists of inspected rooms and apartments at the University Residence Bureau.

KING'S CROWN HOTEL

The King's Crown Hotel, located at 420 West 116th Street, in close proximity to the University is owned by the University and operated by the Knott Hotels Corporation. It provides accommodations at reasonable rates, available for relatives and guests of members of the University community.

EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the Campus entrance, are the offices of the Director of Earl Hall (Men's Residence Halls Office), the Residence Bureau and the Secretary of Appointments. On the upper floor are the offices of the Chaplain of the University and his staff. An auditorium seating 400 people is used by musical and dramatic organizations. The lower floor, entered from Broadway, is occupied by the offices of the University Medical Officer.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the University Medical Officer. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.

MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists, and nursing care, will receive such information upon applying at the office of the University Medical Officer.

THE COLLEGE OF PHARMACY

IMPORTANT ANNOUNCEMENT

STATE BOARD REQUIREMENTS

It has been agreed among all the important state boards of pharmacy in the United States, with the exception of New York, that the degree of Graduate in Pharmacy, awarded for a course of less than four years will not be accepted from graduates matriculating after January 1, 1932. In certain of the states there is an additional demand that the college instruction be spread over five days of the week. It follows that students matriculating in the pharmacy schools of this state must pursue some other course than the Ph.G. course of three years, if they wish their diplomas to be recognized in other states. Our University Course of four years leading to the degree of Bachelor of Science in Pharmacy (see page 17) is more than equivalent to the four-year course required by other states. This course provides 3808 hours of instruction during four years of 32 weeks each, the work occupying five days of each week.

GENERAL STATEMENT

The one hundred and fourth annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 18, 1933.

THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the city. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus, and Amsterdam Avenue lines connect with nearly all surface lines in the city. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College building was erected in 1894, after a study of the principal buildings of the kind in this country and abroad. So great has been the increase in the applications for admission that it was found necessary in 1923 to provide greater accommodations in the form of an additional connecting building. This provides greatly increased and improved facilities for the work of the University classes. In connection with the latter, extensive provision has been made for research work, by both Faculty and special students. Our library has also been greatly improved, the entire lower floor of the newer building having been reserved for its accommodation.

THE LIBRARY

The library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy.

Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the general Library of

Columbia University on Morningside Heights, libraries of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great library of the Surgeon-General's office at Washington.

The library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library copies of the textbooks in use by the College may not be removed from the library.

INFORMATION BUREAU

The information bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service:

1. Telephone inquiries will be answered without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the information bureau, Trafalgar 7-1733, and will receive information immediately if it is accessible.

2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.

3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.

4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical, or botanical periodicals will be prepared for those desiring to pay for such service.

5. Visitors to the library, desiring to do their own research work, will be given courteous attention.

STUDENT EMPLOYMENT

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

Any student wishing to secure employment should, upon entering the College, communicate with the Registrar.

APPLICATION FOR ADMISSION

Every candidate for admission to the College of Pharmacy is required to file with the Registrar of the College a personal application and a transcript of his high

school record, blank forms for which can be had upon application. He is also required to file an approval of his application for a pharmacy student qualifying certificate *before he can be accepted*, and he must secure the apprentice license before his matriculation can be considered complete.

NEW YORK STATE QUALIFYING CERTIFICATE

To be entitled to a pharmacy student qualifying certificate, the applicant must be at least seventeen years of age, and must have been graduated from an accredited four-year high school course, or have covered courses acceptable to the Department of Education as a full equivalent thereof. A high school or other secondary school course of study will not be considered acceptable unless the applicant has received the school diploma, and unless his or her record includes:

English, four years.

Science, two years.

Mathematics, two years.

Foreign language, two years.

History, one year.

Physiology, one-half year (unless the two years of science include biology or general science).

Civics, one-half year.

Sufficient electives to make up a full four-year course aggregating 15 units.

The fulfillment of these requirements must be officially guaranteed by a qualifying certificate issued by the New York State Department of Education. If the applicant is entitled to receive the certificate, he will be so notified by a letter which should be presented to the Registrar of the College of Pharmacy. Blank forms for making application for the certificate may be secured either from the Registrar's office or from the Department of Education at Albany.

APPRENTICE LICENSE

The apprentice license should be applied for when the candidate commences his experience in a pharmacy or drug store. Those who have had no experience before entering the pharmacy school, or whose experience has been in a drug store or pharmacy outside of New York State, will make application for their licenses through the school during the first week of the course, the Registrar acting as "preceptor." Blank forms for making application for the apprentice license may be secured either from the Registrar's office or from the Board of Pharmacy at Albany, New York.

HEALTH CERTIFICATE

All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. Appropriate blanks are furnished by the Registrar of the College.

COURSES OFFERED

Two regular courses of study are offered, known respectively as the College Course and the University Course, and three evening courses in the Departments of *Materia Medica*, Pharmacy, and Chemistry.

THE COLLEGE COURSE

This course now comprises three full years of professional work, and is designed to fit the graduate for meeting the educational requirements of the State Board. Attention is directed to the first paragraph on page 14 under the heading, "State Board Requirements." The precise object of a course leading to the degree of Graduate in Pharmacy being to prepare such graduates for meeting the conditions of service in a retail pharmacy, a large amount of time is assigned to the Department of Pharmacy, and to those features of the work of the other departments which have a direct bearing on practical pharmacy.

THE UNIVERSITY COURSE

The Department of Health of the City of New York has placed the Bachelor of Science in Pharmacy, graduating from this course, in the position of being eligible to conduct a bacteriological laboratory or to fill similar positions.

The attention of prospective students is directed to the increasing call for graduates of advanced courses, to fill other professional positions. The general application of Federal, state, and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which formerly were often left to incompetent and irresponsible employees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

To meet these higher requirements, four- and six-year courses of study, leading respectively to the degrees of Bachelor of Science in Pharmacy (B.S. in Phar.), and Doctor of Pharmacy (Phar.D.) are offered.

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. To members of the University Class only are open certain of the University privileges.
2. The University Class attends on five days weekly, and the course includes regular work in academic subjects, conducted by instructors approved by the Director of University Extension of Columbia University.
3. For the University Class, the College provides a thorough course of laboratory instruction in advanced chemistry, pharmacy, and physics and special courses in zoölogy, microscopy and bacteriology, consisting of both theoretical and laboratory instruction.
4. Our graduate course, leading to the degree of Doctor of Pharmacy, is open only to graduates of the four-year University Course.
5. Not only is the degree of Bachelor of Science recognized as of higher rank than that of Graduate in Pharmacy, but the four-year course is the one demanded for licensure in pharmacy in many of the states of the Union.

GRADUATE COURSE

This course, leading to the degree of Doctor of Pharmacy, is open to graduates with the baccalaureate degree, conferred by this college or by other schools of pharmacy maintaining equivalent courses of study. The course consists of two full years of study in residence. Thirty hours weekly are occupied in research work in the department representing the major subjects, and three hours weekly in each of the other two departments. For this session, not more than two students will be matriculated in each of the three departments.

ENTRANCE REQUIREMENTS

COLLEGE COURSE

To be eligible for admission, the candidate must be at least seventeen years of age, and must meet the requirements for the pharmacy student qualifying certificate, as outlined on page 16.

THE UNIVERSITY COURSE

This course of four full academic years (September to June) leads to graduation with the other departments of the University, and to the degree of Bachelor of Science in Pharmacy, conferred by the University.

The requirements for admission to this course are the same as those for Columbia College. The student must be seventeen years of age, must have graduated from a high school within or outside of the state of New York that is accredited by the Education Department of this state, and must present a pharmacy student qualifying certificate from the Education Department of this state, as outlined on page 16.

Applications for admission to the 1933-1934 session of the University Course should be filed on or before September 5, 1933.

The evidence of adequate preparation for admission to the University Course in the subjects required on the part of candidates who have not completed a year of college work, *includes both examination and school records.*

The subjects which candidates may offer in fulfillment of these requirements are outlined below. (A "unit" implies the study of the subject for a time equivalent to five hours weekly for one year.)

PRESCRIBED SUBJECTS

All candidates *must* offer:

English	{	1 (grammar and composition)	2 units
		2 (literature)	1 unit
Mathematics	{	ai (algebra to quadratics)	1 unit
		aii (quadratics and beyond)	1 unit
		c (plane geometry)	1 unit

EITHER

(1) Latin¹ 4 units

¹Greek, 3 units, may be substituted for Latin, in which case 6 elective units must be offered.

OR

(2)	{	Latin, Greek, French, German, Spanish or Italian	3	}	5 units
		Physics or chemistry	1		
		History	1		
Elective Subjects, to make up 15 units					4 or 5 units

ELECTIVE SUBJECTS

Group I

The candidate may offer any of the following subjects not included among his prescribed subjects, without other restriction than that to offer an advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject.

Biology—See Zoölogy	
The English Bible	1 unit
Elementary Greek	2 or 3 units
Elementary history	1 or 2 units
Drawing (freehand or mechanical)	1 unit
Music	1 unit
Intermediate French	1 unit
Intermediate German	1 unit
Intermediate Italian	1 unit
Intermediate Spanish	1 unit
Advanced French	1 unit
Advanced German	1 unit
Social science	1 unit
Advanced Spanish	1 unit
Advanced mathematics (College)	½, 1 or 1 ½ units
And in the case of candidates not offering 4 units in Latin:	
Elementary Latin	2 or 3 units

Group II

The candidate may offer not more than 4 units in all from the four subjects following:

Elementary French	2 units
Elementary German	2 units
Elementary Italian	2 units
Elementary Spanish	2 units

Group III

The candidate may offer not more than 3 units in all from the six subjects following:

Botany	1 unit
Chemistry	1 unit
Physics	1 unit
Physiography	1 unit
Shopwork	1 unit
Zoölogy	1 unit

NEW METHOD

Under the "new method," candidates whose school and character records are entirely satisfactory, may meet the examination requirements by means of a psychological test. The school course must include three units in English, three in mathematics (elementary and intermediate algebra and plane geometry), and at least three units in a foreign language, ancient or modern. It must have been concerned primarily with languages, science, mathematics, and history.

OLD METHOD

Under the "old method," the examination requirements for admission may be satisfied by any one of the three following means, or any approved combination thereof:

1. By the examinations of the College Entrance Board, held in June of each year at Columbia University and at about 150 other educational centers in the United States and abroad.

2. By the examinations conducted at Columbia University in September of each year, by the Director of University Admissions.

(The examination grades in connection with the above two methods are interpreted in the light of the record which students have made in school.)

3. By the examinations given in the high schools by the Education Department of the state of New York to students who have satisfactorily completed certain courses in these high schools. In these examinations, 75 per cent will ordinarily be regarded as the lowest passing mark.

For candidates qualifying for admission on the basis of examinations before Columbia University or the College Entrance Board, two methods are open:

- a. *Examination in Fifteen Units.* A candidate may offer examinations in fifteen units as evidence of his preparation in secondary school subjects.

- b. *Four-Examination Plan.* A candidate who has completed a satisfactory secondary school course with a high degree of proficiency may, by special permission, satisfy the examination requirement by means of "comprehensive examinations" in not less than four subjects including those prescribed for admission.

Candidates entering by the old method are required to take the psychological examination for purposes of record only.

Those contemplating the September, 1933, examinations, must file their applications with the Secretary of Columbia University on or before the first Monday in September. Those who contemplate taking the June, 1934, examinations, must file their applications with the Secretary of the College Entrance Board at 431 West 117th Street, New York City, early in May. Blank forms of application for either series of examinations may be secured from the respective secretaries.

Every candidate for admission to the University Course should secure a copy of the current Announcement of Entrance Examinations and Admission which may be had upon application to the Secretary of the University.

ADMISSION TO ADVANCED STANDING

Candidates may be admitted to advanced standing only upon a satisfactory record from their school of previous residence. Provided they are eligible for the

pharmacy student qualifying certificate required by the New York State Department of Education, candidates who have completed, without condition, corresponding courses in a pharmacy school registered by the State Education Department, are eligible for admission to the second, third, or fourth years, respectively.

FEES

The fees to be paid by students are subject to change at any time in the discretion of the Trustees. The following schedule is in force for the 1933-1934 session or for the students accepted in any of the regular courses leading to degrees.

COLLEGE COURSE (FIRST, SECOND, AND THIRD YEARS)

Registration fee	\$5
Student activities	10
Breakage deposit	10
Examination fee	10
Tuition	250
Laboratory fees	45

UNIVERSITY COURSE

	<i>First and Second Years</i>	<i>Third Year</i>	<i>Fourth Year</i>	<i>Graduate Years</i>
Registration fee	\$5	\$5	\$5	\$5
Student activities	10	10	10	
Breakage deposit	10	25	25	25
Examination fee	10	10	15	20
Tuition	300	300	300	350
Laboratory fees	60	60	60	60

Special Courses. Students desiring to pursue individual courses as special students will be required to pay *pro-rata* charges.

Summer Courses. The fee for any laboratory course is \$25 for first, second, and third year work in the College Course. In the University Course, the fee is \$25 for first and second year work and \$50 for third and fourth year work.

Evening Courses. The fees for the various evening courses will be found among the descriptions of these courses, beginning on page 46.

Books and Supplies. It is estimated that an expenditure of \$50 will cover the cost of the textbooks and necessary apparatus required for the entire College Course, and of \$75 for the entire University Course for the B.S. degree. The heaviest expenditure in all cases will be in the first year; many of the required reference works being used also in subsequent years.

METHODS OF PAYMENT

Regular Courses

One of three methods for the payment of the tuition fee for the year may be elected by the candidate, as indicated below. In this connection, it is to be noted

that all are required to pay the registration fee, the breakage deposit, the student activities fee and the first installment of the tuition fee at the time of registration. The dates for registration in the various classes will be found in the academic calendar on page 61.

A. Pay in full at the time of registration.

B. Pay one half of the tuition fee at the time of registration, and the balance on or before January 8, 1934. Under this arrangement, an additional \$3 must be added to the first installment.

C. Pay one third of the tuition fee at the time of registration; one third on or before December 4, 1933, and the balance on or before February 5, 1934. Under this arrangement, an additional \$5 must be added to the first installment.

A student electing plan B or C makes himself liable to suspension from further attendance if he fails to meet the payments when due.

Second, third, and fourth year students, who register after the last day set for their registration (see Academic Calendar) are required to pay an additional fee of \$5 for late registration.

Examination Fees. Dates upon which fees for examination in course are required will be found in the Academic Calendar.

The rate for reëxamination is on the basis of \$5 for each subject in September and \$10 for the entire series in the spring.

Rebates. The registration and student activities fees shall not be subject to rebate.

In the case of the total withdrawal of a student from the College, a partial return of the tuition fee may be authorized by the Trustees, but in no case shall more than two thirds of the total charge for that year be returned.

Special, Summer, and Evening Courses. Students registering in any of these courses are required to pay the tuition and other fees *in advance*.

METHOD OF INSTRUCTION

The instruction of each class during the first and second years of the College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College. During the third year, an additional half-day must be devoted to work in the pharmacy laboratory. All students who can do so are urged to devote their third year wholly to College work.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.

REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the bulletin boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

THE DEAN

The Dean is the Executive Officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

Ordinarily the Dean will be found in his office at the hours given below. As he is frequently called out of the city, it is advisable to make important appointments by telephone.

During College Term

Tuesday at 11 a.m.

Wednesday, Friday, and Saturday at 10 a.m.

During Summer Vacation

Tuesday, Thursday, and Saturday at 10 a.m.

REQUIREMENTS FOR ALL REGULAR STUDENTS

Attendance

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third and fourth year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during at least 90 per cent of the periods assigned to each course pursued. For being late twice at daily opening, the student will be charged with one absence.

For failure to meet this requirement, the student forfeits the privilege of presenting himself for examination in the course or courses in which the excessive absences occurred.

Advancement in Classes

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the passing mark being 75 per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations will be allowed to undergo supplementary examinations to be held as announced on page 61, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course of that year, provided, however, that such students may be refused readmission if, in the judgment of the Faculty, they are not qualified to be students of this college. A student

who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer, except in special cases.

By a regulation of the State Education Department, students failing in more than two subjects must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 1, 1933.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examinations on paying an additional fee of \$10 and complying with all other requirements.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination.

All students must obtain a rating of 75 per cent or higher in every department in which they may be examined. Any student failing in one or more departments, but not in laboratory courses, may present himself for reexamination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without reexamination in the other departments. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 46.

Students of the third year University Class failing in a laboratory course of a single department may be permitted to remove this failure during the Summer Laboratory Session. Students of this class failing in the laboratory courses of more than one department will be required to repeat in full those courses in which they fail, during the next regular session.

PRIZES, SCHOLARSHIPS, AND FELLOWSHIPS

Competition for the prizes, scholarships, and positions on the honor rolls is open only to those students who pursue their entire course at this college. Exceptions to this rule may be made in such awards open to competition by students of the University Classes only.

The College reserves the right to withhold the award of any scholarship or prize, if in its opinion, no candidate has exhibited qualifications justifying the award.

HONOR ROLL. The College Classes and the University Classes will have separate and distinct honor rolls.

For the College Classes, the roll is limited to thirteen candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the three Departments of Pharmacy, Materia Medica, and Chemistry will be the basis of computation for the general average.

For the University Classes, the roll is limited to three candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the four Departments of Pharmacy, Materia Medica, Chemistry, and the Cultural Courses will be the basis of computation for the general average.

ALUMNI ASSOCIATION PRIZES. The Alumni Fund of the College of Pharmacy provides annually for a gold, a silver, and a bronze medal to be presented at Commencement to the three students having respectively attained the first, second, and third highest standings in all branches taught during the third year of the College Course.

The association also provides for five additional prizes awarded annually on Alumni Day to members of the first and second year classes of the College Course, as follows: *Torsion Balance*, awarded to that second year student who has secured the highest standing during the work of the two years; a copy of *The United States Dispensatory* to that student who has secured the highest standing during the work of the second year; a copy of Rusby, Bliss, and Ballard, *Properties and Uses of Drugs* awarded to that student securing the second highest standing in the work of the second year; a copy of Arny's *Principles of Pharmacy* to that student who has secured the highest standing in the work of the first year, and a copy of Sadtler, Coblenz, and Hostmann's *Pharmaceutical Chemistry* to that student who has secured the second highest standing in the work of the first year.

In the event that the winner of the *Torsion Balance* has the highest record for the second year, then *The United States Dispensatory* and the *Materia Medica* will be awarded respectively to the second and third member of the honor roll.

MAX J. BREITENBACH PRIZE. A cash prize of \$200, accompanied by a certificate, offered annually for the highest proficiency in the junior (third year) University Class. This prize is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach, for many years a devoted Trustee.

DIEKMAN PRIZE. This prize was founded in 1930 by the Dante Circle, in honor of Dr. George C. Diekman, Professor Emeritus of Pharmacy. It consists of a gold charm, and is awarded to that member of the graduating class who has attained the highest average in the courses in theoretical pharmacy throughout the three years of the College Course.

LOUIS DOHME PRIZE. This is an annual cash prize of \$100, founded by Ernest Stauffen, in memory of Louis Dohme. It is awarded to that Graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopoeia and National Formulary, as determined by the laboratory records and examinations.

GERMAN APOTHECARY'S ASSOCIATION PRIZE. In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited during the final year of the College Course the greatest proficiency in the compounding of prescriptions.

ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that Graduate in Pharmacy who has obtained the highest general average in practical laboratory work during the third year.

KAPPA PSI PRIZE. The Gamma Chapter of the Kappa Psi Fraternity offers annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

LEHN and FINK PRIZE. This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the Graduate in Pharmacy attaining the highest average in the third year examinations in the Department of Pharmacy.

LILLIAN LEITERMAN PRIZE. A gold medal, offered annually by Miss Lillian Leiterman (1911), to that woman member of the graduating class who has maintained the highest standing throughout the entire three years of the College Course.

NEW YORK STATE PHARMACEUTICAL ASSOCIATION PRIZE. A year's membership offered by the Association to a member of the Honor Roll not winning any other prize.

OLSHANSKY MEMORIAL MEDAL. This is a gold medal, founded by the students of this college in attendance upon the session of 1923-1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in the final year of the College Course in the subject of dispensing pharmacy.

GEORGE J. SEABURY SCHOLARSHIP. This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the senior (fourth) year of the University Course, of that member of this class who has maintained the highest standing during the three years.

E. R. SQUIBB PRIZE. This is an annual cash prize of \$100, offered by Messrs. E. R. Squibb and Sons, in memory of Dr. E. R. Squibb. It is awarded to that Graduate in Pharmacy who exhibits the greatest proficiency in analytical chemistry during his third year, as determined by the laboratory records.

TRUSTEES' PRIZES. The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100 each, for the highest rating secured in competitive examination in the three Departments of Chemistry, Pharmacy, and Materia Medica. These competitive examinations are open to those members of the graduating class who have attained positions on the honor roll of the College Course. If the number of these honor students be less than thirteen, a sufficient number of graduates having the next highest averages to make that number will be permitted to compete for these prizes. A certificate, stating the honor for which the prize has been awarded, is also presented to each of the recipients.

TRUSTEES' SCHOLARSHIPS. Six scholarships of the value of \$100 each are awarded annually by the Board of Trustees of the College. These are open to two members in each of the first and second years of the College Course and one member in each of the first and second years of the University Course, to be applied toward the tuition fee of the following session. The awards are made upon the recommendation of the Faculty and the office of the Treasurer, and applications therefor must be placed with the Registrar not later than February 1, 1934.

JOSEPH WEINSTEIN PRIZE. This prize consists of a gold medal and is offered by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that Graduate in Pharmacy who has exhibited the greatest proficiency in analytical chemistry during the three years, as determined by the laboratory records.

WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that member of the graduating class who has attained the highest general average in the practical laboratory work of the Department of Pharmacy during the three years of the College Course.

ISAAC PLAUT FELLOWSHIP. This fellowship for the encouragement of graduate study and original research was founded by Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this fellowship must have secured the degree of B.S. in Pharmacy at this college, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this college who will have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

The Fellow will be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He will attend a foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and will pursue a course of study approved by the Faculty. At the close of his incumbency he will present to the Faculty a written report of his work.

The fellowship payment will be made in three equal installments, one on June 15, one on November 1, and one on March 1, provided that the Fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he will forfeit all further privileges and emoluments conferred upon him by his appointment to the fellowship, and the Trustees of the College of Pharmacy may declare the fellowship vacant.

STUDENT ORGANIZATIONS

Under direction of the Student Activities Committee.

THE STUDENT COUNCIL

FRATERNITIES AND SORORITIES

Kappa Psi	Delta Sigma Theta	Tau Delta Mu
Phi Delta Chi	Alpha Zeta Omega	Circolo Dante
Rho Pi Phi	Sigma Tau Epsilon	Lambda Kappa Sigma

SOCIETIES

Maimon Society
Rice Chemical Society

Menorah Society
Chess and Checker Club

ATHLETICS

Basket ball

Wrestling

SYNOPSIS OF STUDIES FOR THE SESSION OF 1933-1934

COLLEGE COURSE

First Year

		Class Hours	Laboratory Hours	Points
<i>Chm.</i> 1-2	General physics	3	0	6
<i>Chm.</i> 3-4	General chemistry (inorganic)	3	0	6
<i>Chm.</i> 5	General chemical laboratory	0	5 ¹	2½
<i>Chm.</i> 6	Analytical chemistry (qualitative)	0	5 ¹	2½
<i>M.M.</i> 1-2	Botany and pharmacognosy	3	0	6
<i>M.M.</i> 3-4	Botany laboratory	0	3	3
<i>Phr.</i> 1-2	Operative pharmacy (theory)	2	0	4
<i>Phr.</i> 3-4	Operative pharmacy (laboratory)	0	3	3
<i>Phr.</i> 5	Pharmaceutical arithmetic	2 ¹	0	2
<i>Phr.</i> 6	Pharmaceutical history and ethics	2 ¹	0	2

Second Year

<i>Chm.</i> 55-56	Inorganic chemistry (metals)	3½	0	7
<i>Chm.</i> 59-60	Analytical chemistry (acidic ions and volumetric)	0	3½	3½
<i>M.M.</i> 53-54	Pharmacognosy	0	3	3
<i>M.M.</i> 57-58	Human physiology and hygiene	2	0	4
<i>M.M.</i> 59-60	Microbiology	1	1	3
<i>Phr.</i> 51	Theory of pharmacy	2 ¹	0	2
<i>Phr.</i> 52	Pharmaceutical arithmetic	2 ¹	0	2
<i>Phr.</i> 53-54	Pharmaceutical Latin	1½	0	3
<i>Phr.</i> 55-56	Dispensing pharmacy	1	2½	4½
<i>Phr.</i> 61-62	Pharmaceutical economics	1	2	4

Third Year

<i>Chm.</i> 103-104	Organic chemistry	3	0	6
<i>Chm.</i> 107-108	Newer remedies	2	0	4
<i>Chm.</i> 109 (110)	Analytical chemistry (advanced volumetric and pharmacopœial assaying)	0	6 ¹	3
<i>M.M.</i> 101-102	Materia medica	3	0	6
<i>M.M.</i> 103-104	Toxicology	1	0	2
<i>M.M.</i> 109-110	Medical appliances and first aid	1	0	2
<i>Phr.</i> 101-102	Theoretical pharmacy	3	0	6
<i>Phr.</i> 103-104	Theoretical dispensing pharmacy	2	0	4
<i>Phr.</i> 105 (106)	Manufacturing pharmacy	0	6 ¹	3
<i>Phr.</i> 107-108	Dispensing pharmacy	0	4	4
<i>Phr.</i> 109-110	Pharmaceutical jurisprudence and economics	2	0	4

¹During 16 weeks.

UNIVERSITY COURSE

First Year

		Class Hours	Laboratory Hours	Points
<i>Chm.</i> 1-2	General physics	3	0	6
<i>Chm.</i> 3-4	General chemistry (inorganic)	3	0	6
<i>Chm.</i> 7	General chemistry (laboratory)	0	4 ¹	2
<i>Chm.</i> 8	Analytical chemistry (qualitative)	0	4 ¹	2
<i>Chm.</i> 10	Physics laboratory	0	4 ¹	2
<i>Phr.</i> 1-2	Operative pharmacy (theory)	2	0	4
<i>Phr.</i> 3-4	Operative pharmacy (laboratory)	0	3	3
<i>Phr.</i> 5	Pharmaceutical arithmetic	2 ¹	0	2
<i>Phr.</i> 6	Pharmaceutical history and ethics	2 ¹	0	2
<i>Eng.</i> 1-2	English	4	0	8
<i>Hist.</i> 1-2	American history	3	0	6

Second Year

<i>Chm.</i> 55-56	Inorganic chemistry (metals)	3½	0	7
<i>Chm.</i> 57-58	Qualitative inorganic analysis	0	3	3
<i>M.M.</i> 1-2	Botany and pharmacognosy	3	0	6
<i>M.M.</i> 51-52	Plant morphology and histology	0	4½	4½
<i>Zoöl.</i> 51-52	Zoölogy	1	2	4
<i>Phr.</i> 57-58	Dispensing pharmacy	0	3	3
<i>Eng.</i> 51-52	English	2	0	4
<i>Ger.</i> 51-52	German	4	0	8
<i>Math.</i> 51	Algebra	3 ¹	0	3
<i>Math.</i> 52	Trigonometry	3 ¹	0	3

Third Year

<i>Chm.</i> 101-102	Theories of chemistry	1	0	2
<i>Chm.</i> 103-104	Organic chemistry	3	0	6
<i>Chm.</i> 106	Analytical chemistry (advanced volumetric, pharmacopœial testing, and urine analysis)	0	19 ¹	10
<i>M.M.</i> 101-102	Materia medica	3	0	6
<i>M.M.</i> 103-104	Toxicology	1	0	2
<i>M.M.</i> 111-112	Microscopic pharmacognosy	½	1½	2½
<i>Phr.</i> 101-102	Theoretical pharmacy	3	0	6
<i>Phr.</i> 109-110	Pharmaceutical jurisprudence and economics	2	0	4
<i>Phr.</i> 111	Manufacturing pharmacy	0	13 ²	5
<i>Phr.</i> 113	Practical dispensing pharmacy	0	3 ²	1
<i>Math.</i> 101	Algebra	3	0	3
<i>Math.</i> 102	Trigonometry	3	0	3

¹During 16 weeks.²During 12 weeks.

Fourth Year

<i>Chm.</i> 151-152	Inorganic quantitative analysis	I	29 ¹	10
<i>Chm.</i> 153-154	Food analysis and toxicology	I	29 ¹	10
<i>Chm.</i> 155-156	Biological chemistry	I	0	2
<i>M.M.</i> 152	Applied pharmacognosy	2	21 ¹	6½
<i>M.M.</i> 154	Botanical taxonomy	0	6 ¹	1½
<i>M.M.</i> 155-156	Human physiology	I	0	2
<i>Phr.</i> 151-152	Advanced pharmacy	I	0	2
<i>Phr.</i> 153-154	Pharmaceutical assaying	0	29 ¹	7
<i>Bibl.</i> 151-152	Pharmaceutical bibliography	I	0	2

¹During 8 weeks.

COURSES OF INSTRUCTION

CHEMISTRY

Chemistry 1-2—General physics (for University freshmen and first year College students). Lectures and recitations 3 hours, 6 points. Professor A. TAUB and instructors.

The first semester of this course covers the subjects of mechanics, the kinetic molecular theory, the properties of matter, heat, wave motion, and sound.

The second semester embraces the subjects of magnetism, electricity, and light. Particular consideration is given to the electron theory, electrolysis, ionization of gases, spectroscopy, and polarization.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of modern physical apparatus.

Textbook: Stewart, *College Physics*.

Chemistry 3-4—General inorganic chemistry (for University freshmen and first year College students). Lectures and recitations 3 hours, 6 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, the beginning of consecutive instruction in chemistry covering three years, is given to the first year students of both the College and the University Classes. It opens with a careful consideration of the fundamental principles of chemistry followed by a discussion of the non-metals and their compounds from their cultural, technical, and pharmaceutical viewpoints.

Textbooks: Deming, *General Chemistry*, third edition; U. S. *Pharmacopæia*.

Chemistry 5—General chemical laboratory (for first year College students). Laboratory 5 hours for 16 weeks. 2½ points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.

This course is intended to familiarize the student with the fundamental laws of chemistry by actual experimentation. To do this properly the student is first given instruction in the use of apparatus, glass manipulation, etc. This is followed by preparation and isolation of a few representative types of elements and compounds. In all this work the underlying general principles are emphasized and placed on a mathematical basis whenever possible. Exercises in writing and calculating chemical equations and work on problems in chemical arithmetic are included.

Textbook: *Laboratory Notes*.

Reference book: Deming, *General Chemistry*.

Chemistry 6—Analytical chemistry (for first year College students). Laboratory 5 hours for 16 weeks. 2½ points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized and separations and identifications of group members are performed. Finally, all facts required by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on unknown samples.

Textbook: Schaefer and Bliss, *Qualitative Chemical Analysis*.

Chemistry 7—General chemistry laboratory (for University freshmen). Laboratory 4 hours for 16 weeks, beginning September 18, 1933. 2 points. Professor H. C. KASSNER and instructors.

The student will be made familiar with laboratory processes by means of a course of experiments in inorganic chemistry, involving the isolation of important elements and a study of their physical and chemical properties; typical compounds are prepared and purified and an examination of their reactions is carried out. Fundamental laws of chemistry are illustrated by experiments conducted by the students who thus obtain a clear understanding of the principles upon which the science of chemistry is based, as well as experience in the manipulation of chemical apparatus.

Textbook: Deming and Aronson, *Exercises in General Chemistry*.

Reference book: Deming, *General Chemistry*.

Chemistry 8—Qualitative inorganic analysis (for University freshmen). Laboratory 4 hours for 16 weeks, beginning January 22, 1934. 2 points. Professor H. C. KASSNER and instructors.

This course in qualitative analysis consists of a study of the basic ions; first the student learns their reactions and he is then taught to separate them systematically and to identify them. Finally he is required to analyze solutions containing two or more basic ions. Throughout the course the theoretical principles upon which the laboratory work is based are explained in detail.

Textbook: Scott, *Elements of Qualitative Chemical Analysis*.

Chemistry 10—Practical physics (for University freshmen). Laboratory 4 hours for $\frac{1}{2}$ year. 2 points. Professor A. TAUB and instructors.

The course consists of sixteen half-day periods of four hours each, given during the second half of the year.

This work consists of experiments in fundamental physical measurements followed by special work in mechanics, heat, light, sound, and electricity. The laboratory is equipped not only with apparatus for routine exercises, but has the appliances necessary for work in colorimetry, spectroscopy, spectrophotometry, refraction, calorimetry, and electrochemistry.

Chemistry 55-56—Inorganic chemistry (for University sophomores, and second year College students). Lectures and recitations $3\frac{1}{2}$ hours. 7 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, a continuation of *Chemistry 3-4*, will be devoted to a consideration of the metallic elements and their compounds. It will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry, such as the modern theories concerning valence, chemical equilibrium, oxidation, reduction and atomic structure, will be discussed. In descriptive chemistry, the course will consider all of the more important metallic elements and their salts. These will be discussed from the standpoint of modern industrial chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition.

Chemistry 57-58—Qualitative inorganic analysis (for University sophomores). Laboratory 3 hours. 3 points. Professor H. C. KASSNER and instructors.

The course in qualitative analysis begun in the first year is continued in the second year. The sequence of work is as follows: (1) the study of the acidic-ions according to an analytical scheme of separation; (2) a systematic method of preliminary testing of unknown compounds; (3) the preparation for analysis of water-insoluble substances; and (4) the complete qualitative analysis of unknown solutions, mixtures or powders containing two or more compounds. The latter part of the course is devoted to an examination of inorganic chemicals carried out according to the pharmacopœial tests for identity and purity, and including limit tests for lead, arsenic, sulphates, etc.

Textbooks: Scott, *Elements of Qualitative Analysis*; U. S. Pharmacopœia.

Chemistry 59-60—Analytical chemistry (for second year College students). Laboratory $3\frac{1}{2}$ hours. $3\frac{1}{2}$ points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.

The first half of the second year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure

for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

The second half of the school year is devoted to the theory and practice of volumetric analysis. The proper preparation of volumetric solutions is given consideration and all types of U. S. P. volumetric assays are conducted. The theories of indicators are presented and considerable time is devoted to the calculations involving a knowledge of volumetric analysis.

Textbooks: Schaefer and Bliss, *Qualitative Chemical Analysis*; U. S. Pharmacopœia.

Chemistry 101-102—Theories of chemistry (for University juniors). Lectures and recitations 1 hour. 2 points. Professor H. H. SCHAEFER.

The object of this course is to bring together, to correlate, and to elaborate somewhat the various theories presented to the student in the regular chemistry and physics lectures. Consideration is given to the kinetic theory, the gas laws, the laws governing change of state, the quantitative laws of chemical combination, the atomic hypothesis, the laws of valence, the periodic system, radioactivity, atomic disintegration, atomic structure, solubility, ionization, indicators, equilibrium, electrochemistry, and colloids.

Special importance is placed upon the practical application of modern theories of physical chemistry to analytical processes and methods.

Textbook: Chapin, *College Chemistry*.

Chemistry 103-104—Organic chemistry (for University juniors and third year College students). Lectures and recitations 3 hours. 6 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, a continuation of *Chemistry 3-4* and *55-56*, will be devoted to a comprehensive study of the carbon compounds, special care being taken to keep the course abreast the new applications of organic chemistry in pharmacy and medicine. The preparation of the more common organic chemicals is given careful consideration and advances under modern methods of research are presented to the class as they are reported.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; U. S. Pharmacopœia.

Chemistry 106—Analytical chemistry and urine analysis (for University juniors). Laboratory 19 hours for 16 weeks, beginning January 22, 1934. 10 points. Professor H. C. KASSNER and instructors.

During the first part of the course, the student is supplied with pure and adulterated samples of official organic chemicals and is required to test them for identity and purity to determine whether they conform to the requirements of the Pharmacopœia, each sample studied representing a typical class of organic compound. This work also involves the determination of congealing, boiling and melting points, fractionations, alcoholmetric estimations and other determinations of like character.

A short course in the qualitative examination and identification of organic compounds, including the preparation of derivatives and the determination of physical constants is included.

The second section of the course is devoted to volumetric analysis, the solutions used being prepared and standardized by the student. The substances assayed include antiseptics, disinfectants, ointments, volatile oils, etc.

The third part of the year's work deals with the assaying of vegetable drugs, including determination of alkaloids in crude drugs and their pharmaceutical products, crude fiber, soluble extractive, etc.

The above course is concluded with certain miscellaneous assays. The final period is devoted to the analysis of urine.

Textbooks: U. S. Pharmacopœia; H. T. Clarke, *Handbook of Organic Analysis*; Jenkins and DuMez, *Quantitative Pharmaceutical Chemistry*.

Chemistry 107-108—Newer remedies (for third year College students). Lecture and recitations 2 hours. 4 points. Professor H. H. SCHAEFER and instructors.

The aim of this course is to make the students familiar with the many preparations generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of

these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given.

Textbook: *New and Non-official Remedies*.

Chemistry 109—Analytical chemistry (for third year College students).

Laboratory 6 hours for $\frac{1}{2}$ year. 3 points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.

This course will be given in six-hour periods to one section during the first half year and to the other section during the second half. This will enable the student to perform operations which require more time than is available in the usual three-hour period. The course will be devoted entirely to pharmaceutical testing and assaying. Some of the more important operations to be carried out are: the preparation and standardization of volumetric solutions, testing the purity and strength of official chemicals and galenicals, selected gravimetric determinations, iodine values, saponification values, examination of oils, identification of alkaloids. The assay of crude drugs will be given special attention by dividing the section into still smaller groups for this work thus insuring better and more careful supervision. Practice will of course be given in the use of the analytical balance.

Textbooks: *United States Pharmacopœia and National Formulary*.

Chemistry 110—Same as *Chemistry 109* but given during the second half of year.

Chemistry 151-152—Inorganic quantitative analysis (for University seniors).

Lectures 1 hour for 32 weeks; laboratory 29 hours for 8 weeks, beginning September 18, 1933. 10 points. Professor H. C. KASSNER and instructors.

The aim of this course is to train the student to carry out with precision many of the more difficult analyses of chemical and pharmaceutical products.

The laboratory work of the course consists, in the main, of a series of selected gravimetric determinations covering a wide field of substances, chosen to illustrate typical methods of procedure. This work is supplemented by hydrogen ion and electrolytic determinations, etc.

In the lecture course, methods of quantitative analysis, gravimetric, volumetric, colorimetric, etc., are discussed at length and compared.

Reference books: Scott, *Standard Methods of Chemical Analysis*; Hillebrand and Lundell, *Applied Inorganic Analysis*.

Chemistry 153-154—Food analysis and toxicology (for University seniors).

Lectures 1 hour for 32 weeks; laboratory 29 hours for 8 weeks, beginning November 13, 1933. 10 points. Professors H. V. ARNY, H. C. KASSNER, and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course describing the various chemical and physical methods of food examination.

Textbooks: Leach, *Food Analysis*; Mason, *Examination of Water*.

Reference books: Allen, *Commercial Analysis*; Autenrieth-Warren, *Detection of Poisons*.

Chemistry 155-156—Biological chemistry (for University seniors). Lectures 1 hour. 2 points. Professor A. TAUB.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

MATERIA MEDICA

Materia Medica 1-2—Botany and pharmacognosy (for first year College students and University sophomores). Lectures and recitations 3 hours. 6 points. Professors C. W. BALLARD, F. HART, and instructors.

The object of this course is to prepare the student for an understanding of that part of materia medica which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction includes a brief consideration of plant life in general and the evolution of the higher plants from those of a simpler nature. The major portion of the time available is devoted to the morphology of the higher plants from which nearly all of our vegetable drugs are derived, the terms used in official descriptions, systems of classification, and botanical nomenclature.

Textbook: Rusby, *Manual of Botany*.

Materia Medica 3-4—Botany laboratory (for first year College students).

Laboratory 3 hours. 3 points. Professors C. W. BALLARD, F. HART, H. TAUB, and instructors.

This course affords opportunity for personal observations supplemental to the theoretical training of the botany lectures (*Materia Medica 1-2*) and is a foundation for laboratory courses in pharmacognosy. The course is divided into three parts as follows:

General: A brief résumé of the developmental sequence of plant life from the single-celled forms to the seed-bearing plants.

Morphology: A detailed study of the various organs of the seed-bearing plants and involving dissection of these parts both with and without the aid of the simple microscope.

Histology: As ability to use a microscope properly is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts and methods of using the instrument.

The course under the direction of Professor BALLARD includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis, and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant.

Textbooks: Ballard, *Elements of Vegetable Histology*, second edition; Ballard and Hart, *Laboratory Manual*.

[Materia Medica 5-6—Posology.

Not given in 1933-1934.]

Materia Medica 51-52—Plant morphology and histology (for University sophomores). Laboratory 4½ hours. 4½ points. Professors C. W. BALLARD, F. HART, H. TAUB, and instructors.

This course corresponds substantially to certain courses in Columbia College (*Botany 1-2, 3-4, s105*) and in addition includes the more specialized treatment of morphology and histology requisite for the study of pharmacognosy.

Morphology: The laboratory course in morphology is designed to supplement the lectures in pharmaceutical botany (*Materia Medica 1-2*). It affords practical training in simple plant dissection, both with and without the dissecting microscope, thereby illustrating the topics considered in the above lecture course and fitting students for the advanced studies of pharmacognosy and taxonomy.

Histology: This section of the course includes a systematic review of one or more representative orders of the Thallophyta, Bryophyta, Pteridophyta, and Spermatophyta. The chief object is the tracing of the origin and development of the various tissues and organs occurring in the higher plants. This is followed by a detailed study of the various cellular elements, considered both as individual tissues and as integral parts of plant organs.

Textbooks: Ballard, *Elements of Vegetable Histology*, second edition; Ballard and Hart, *Laboratory Manual*; Rusby, *Manual of Botany*; Curtis, *Nature and Development of Plants*.

Materia Medica 53-54—Pharmacognosy, macroscopic and microscopic (for second year College students). Laboratory 3 hours. 3 points. Professor H. TAUB and instructors.

Macroscopic: This part of the course comprises laboratory instruction in the classification, identification and description of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial sources; official description, definition and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. A knowledge of botany (*Materia Medica* 1-2, 3-4 or equivalent) is prerequisite to a proper understanding of the work in this course.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*.

Microscopic: The preliminary work of this part of the course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (course *Materia Medica* 3-4) is coördinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements *in situ* and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

Textbooks: Ballard, *Elements of Vegetable Histology*, second edition; Ballard, *Laboratory Manual*.

[Materia Medica 55-56—Macroscopic pharmacognosy.

Not given in 1933-1934.]

Materia Medica 57-58—Human physiology and hygiene (for second year College students). Lectures and recitations 2 hours. 4 points. Professor H. H. RUSBY and instructors.

In addition to the skill in pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in human physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of materia medica as is properly required of the practicing pharmacist.

Textbook: Bachman and Bliss, *Essentials of Physiology*.

Materia Medica 59-60—Microbiology (for second year College students).

Lectures and recitations 1 hour, laboratory and demonstrations 1 hour. 3 points. Professor F. HART and instructors.

This subject constitutes an introduction to the nature, behavior and effects of microorganisms, especially of bacteria. Without entering upon the subject of practical laboratory bacteriology, as is done in the University Course, it discusses the life history of bacteria, and the part that they

play in fermentation and decomposition, as well as in disease, and indicates the general nature of the means employed in combating them, and treats of biological products. The subject of sterilization, as employed in the pharmacy, and the principles of antiseptics and immunization are studied.

[Materia Medica 61-62—Bacteriology.

Not given in 1933-1934.]

Materia Medica 101-102—Materia medica (for University juniors and third year College students). Lectures and recitations 3 hours. 6 points. Professor C. W. BALLARD and instructors.

The subject matter of this course includes the drugs of the U. S. Pharmacopœia and National Formulary together with nonofficial drugs in common use by physicians or the laity. The various types of remedies are considered in accordance with their therapeutic uses. Discussion of the individual drugs covers the official titles, abbreviations, definitions and standards, origin, preparation, preservation, variations in quality and causes of such variation, constituents, properties and uses, preparations and doses. All instruction in description, structure and identification, and the detection of adulterants and impurities is referred to the extensive course in pharmacognosy.

Textbook: Rusby, Bliss, and Ballard, *Properties and Uses of Drugs*.

Materia Medica 103-104—Toxicology (for University juniors and third year College students). Lectures and recitations 1 hour. 2 points. Professor C. W. BALLARD and instructors.

The classification of poisons is based upon the physiological action of medicines, taught in the preceding year, and is synoptically presented. The toxicology of the individual drugs is then taken up in detail in connection with their physiological action and medicinal uses. Experience has shown that by this method the modes of occurrence of poisoning accidents, the poisonous doses, the action of poisons and their rational treatment, are all made more intelligible to the student, and are better impressed upon his memory, than by treating the subject as entirely disconnected from that of materia medica.

Textbook: Rusby, Bliss, and Ballard, *Properties and Uses of Drugs*.

Materia Medica 109-110—Medical appliances and first aid (for third year College students). Lectures 1 hour. 2 points. Professor C. W. BALLARD.

This course includes a systematic presentation of the facts of interest to the retail pharmacist in the use and sale of the ordinary sick-room sundries. The course is thus linked with materia medica on the one hand and commercial pharmacy on the other. Among the topics considered are: bandaging and dressing materials, rubber sundries, glass and metal appliances and ligatures. A brief series of lectures is included in connection with first-aid treatment. This instruction is to enable the pharmacist to cooperate intelligently with the physician in dealing with the common emergencies in which first recourse is often to the nearest pharmacy.

Materia Medica 111-112—Microscopic pharmacognosy (for University juniors). Lectures $\frac{1}{2}$ hour, laboratory $1\frac{1}{2}$ hours. $2\frac{1}{2}$ points. Professor H. TAUB and instructors.

This course consists of a detailed study of the histological structure of the several plant organs, followed by a consideration of the characters and adulterants of the commonly used powdered drugs. It includes the preparation of specimens both in sectioned and powdered forms and the application of stains and microchemical tests to the materials so prepared.

Textbook: Ballard, *Laboratory Manual*.

Materia Medica 152—Applied pharmacognosy (for University seniors). Lectures 2 hours, laboratory 21 hours for 8 weeks beginning March 19, 1934. $6\frac{1}{2}$ points. Professors C. W. BALLARD, H. TAUB, and instructor.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials, using these sections for the demonstration of

staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work, it is expected that the student will avail himself of the library facilities of the College and freely use the economic drug and food collections of the laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, so far as possible, be commercial products which have been analyzed by microscopical methods.

References: Youngken, *Pharmacognosy*.

Materia Medica 154—Botanical taxonomy (for University seniors). Laboratory 6 hours for 8 weeks beginning March 19, 1934. 1½ points. Professor H. H. RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Textbook: Rusby, *Manual of Botany*.

Reference books: Bentham and Hooker, *Genera Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

Materia Medica 155-156—Human physiology (for University seniors). Textbooks and conferences 1 hour. 2 points. Professor C. W. BALLARD.

This course consists of a series of discussions, based on assigned reading, occupying one hour weekly throughout the term.

Textbook: Howell, *Physiology*.

PHARMACY

Pharmacy 1-2—Operative pharmacy; theory (for first year College and University students). Lecture 1 hour, recitation 1 hour. 4 points. Professor H. M. CARTER and instructors.

The purpose of this course is to familiarize the student with the fundamentals of pharmaceutical science. It comprises the study of elementary operations, such as heating, evaporation, sublimation, distillation, solution, crystallization, precipitation, filtration, etc. The second semester is devoted to the general discussion of the classification of the preparations of the U. S. Pharmacopœia and National Formulary. This will include definitions, descriptions, uses and methods of preservation of the various types of official galenicals.

Textbooks: U. S. *Pharmacopœia*; Arny, *Principles of Pharmacy*.

Pharmacy 3-4—Operative pharmacy; laboratory (for first year College and University students). Laboratory 3 hours. 3 points. Professors L. N. BROWN, H. M. CARTER, J. S. DORFMAN, and instructors.

The laboratory work correlates, as far as is practical, the lecture material. The important pharmaceutical processes, the methods for the determination of specific gravity, the solubility of salts, and the alcoholic content of pharmaceutical preparations are given careful consideration.

In addition the student prepares the types of simple galenical preparations of the U. S. Pharmacopœia and National Formulary.

Textbooks: U. S. *Pharmacopœia*; National Formulary; Wimmer, *Operative Pharmacy Notes*.

Pharmacy 5—Pharmaceutical arithmetic. Course A (for first year College and University students). Lecture 1 hour, recitation 1 hour. One semester, 2 points. Professor L. N. BROWN and instructors.

This course comprises the first half of the required instruction in pharmaceutical arithmetic, the second half being given in the second year. The more elementary portions of the work are taken up, such as systems of weights and measures, specific gravity calculations, thermometric scales, and conversions of the various systems into each other, etc.

Textbook: Sturmer, *Pharmaceutical Arithmetic*.

Pharmacy 6—Pharmaceutical ethics and history (for first year College and University students). Lecture 1 hour, recitation 1 hour. One semester, 2 points. Professor C. P. WIMMER and instructors.

The purpose of this course is to introduce pharmacy as a profession to the student. It consists of a series of lectures on the historical development of pharmacy, beginning with the Egyptian era and tracing it through the Greek, Roman, Arabic, and European periods up to the present time. Special stress is laid upon the development of pharmacy in the United States; its position in the economic life of the nation; its organization; the aims, purposes, and accomplishments of the various pharmaceutical associations; the pharmaceutical code of ethics, etc.

Pharmacy 51—Theory of pharmacy (for second year College students). Lecture 1 hour, recitation 1 hour. One semester, 2 points. Professor C. P. WIMMER and instructors.

This course comprises a detailed study of the various types of active constituents of drugs, their methods of extraction, solubilities, and general characteristics. Official and unofficial methods of drug extraction are discussed and the study of the official fluid extracts, extracts, tinctures is covered.

Textbooks: *U. S. Pharmacopœia*; *National Formulary*.

Pharmacy 52—Pharmaceutical arithmetic. Course B (for second year College students). Lecture 1 hour, recitation 1 hour. One semester, 2 points. Professor L. N. BROWN and instructors.

This course is devoted to the more advanced aspects of pharmaceutical arithmetic. It comprises the study of proportions, percentage, alligation, reducing and enlarging formulae, etc., as used in manufacturing and dispensing pharmacy.

Textbook: Sturmer, *Pharmaceutical Arithmetic*.

Pharmacy 53-54—Pharmaceutical Latin (for second year College students). Lecture 1 hour, recitation ½ hour. 3 points. Professor J. S. DORFMAN and instructors.

This course is devoted to the study of pharmaceutical Latin. The work is divided as follows: (1) study of the principles of etymology and syntax; (2) systematic study of Latin vocabulary including official Latin titles, botanical nomenclature and abbreviations with special reference to the formation of words and their relative importance to pharmacy; and (3) practice in prescription writing, necessary to an intelligent understanding of Latin used in prescriptions.

Textbooks: Dorfman, *Pharmaceutical Latin*; *U. S. Pharmacopœia*; *National Formulary*.

Pharmacy 55-56—Dispensing pharmacy laboratory (for second year College students). Recitation 1 hour, laboratory 2½ hours. 4½ points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The first semester embraces general methods of compounding pills, troches, bacilli, emulsions, ointments and suppositories. It includes theoretical instruction and training in practical work emphasizing the habits of accuracy and neatness.

The second semester deals more especially with prescriptions and includes the compounding and dispensing of the various types requiring technical knowledge and skill. Consideration is given to tabler triturates, mucilages, mixtures, and filling of capsules, cachets, collapsible tubes, etc. General instruction is given in the reading and interpretation of prescriptions, the recognition of the various constituents of their ingredients together with the proper methods and manner of dispensing them.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; *U. S. Pharmacopœia* and *National Formulary*.

Pharmacy 57-58—Dispensing pharmacy laboratory (for University sophomores). Laboratory 3 hours. 3 points. Professor H. M. CARTER and instructors.

This course provides laboratory practice and instruction in the compounding and dispensing of eye washes, gargles, sprays, lotions, liniments, emulsions, bulk powders, folded powders, capsules, pills, ointments, and suppositories. The dispensing work is assigned solely by means of written prescriptions.

[Pharmacy 59—Manufacturing pharmacy laboratory.*Not given in 1933-1934.]***Pharmacy 61-62—Pharmaceutical economics (for second year College students). Lecture 1 hour, laboratory 2 hours. 4 points. Professor F. D. LASCOFF.**

This course in pharmaceutical economics is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug store, including the choice of location, the elements of business administration and store management, insurance, problems of retail merchandising, including the value of discounts, banking, principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will partially be devoted to the principles underlying the making and interpretation of these records.

Pharmacy 101-102—Theoretical pharmacy (for University juniors and third year College students). Lectures 2 hours, recitation 1 hour. 6 points. Professor C. P. WIMMER and instructors.

During the first semester, the study of the U. S. Pharmacopœia and National Formulary galenic preparations is continued and completed. Their methods of preparation are individually studied and the reasons for each step taken in their preparation are given. The second semester is devoted to the study of non-official important galenic, cosmetic and toilet preparations, as well as to the study of the pharmacy of individual substances used in prescriptions.

Textbooks: *U. S. Pharmacopœia; National Formulary V; American Pharmaceutical Association Recipe Book.*

Pharmacy 103-104—Theoretical dispensing pharmacy (for third year College students). Lectures 1 hour, recitation 1 hour. 4 points. Professor C. P. WIMMER and instructors.

This course is devoted in the main to the study of the problems encountered by the pharmacist in his prescription work. Prescriptions of all kinds, especially such as present some difficulties, are studied with the aid of lantern slides. The numerous incompatibilities of present-day prescription work are discussed, as well as ways of avoiding or overcoming them. The subject of homeopathy receives the attention it deserves.

Textbooks: Scoville, *The Art of Compounding*; Ruddiman, *Incompatibilities*.

Pharmacy 105—Manufacturing pharmacy laboratory (for third year College students). Laboratory 6 hours for 16 weeks beginning September 18, 1933. 3 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The work of this course is a continuation of the first year. Many inorganic and organic pharmaceutical preparations and salts are manufactured. In addition, galenicals, toilet preparations, and hospital formulæ are compounded. Especial attention is given systematic training in the identification of many chemicals and galenicals official in the United States Pharmacopœia and National Formulary.

Textbooks: *U. S. Pharmacopœia; National Formulary; National Dispensatory; The Pharmaceutical Recipe Book*; Diekman and Wimmer, *Pharmacy Notes*.

Pharmacy 106—Same as Pharmacy 105 but given during second half of the year, beginning January 15, 1934.**Pharmacy 107-108—Dispensing pharmacy laboratory (for third year College students). Laboratory 4 hours. 4 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.**

The work in the dispensing pharmacy laboratory deals particularly with the various phases of prescription dispensing, such as checking, labeling, pricing, and delivery, etc. The all-important subject of chemical, pharmaceutical, and therapeutical incompatibilities is thoroughly studied. The continual introduction of new remedies renders the subject of prescription incompatibilities a never-ending study, and it is the aim of this course to qualify its graduates to keep pace with discovery.

Textbooks: Ruddiman, *Incompatibles in Prescriptions*; Diekman and Wimmer, *Pharmacy Notes*.

Pharmacy 109-110—Pharmaceutical jurisprudence and economics (for University juniors and third year College students). Lectures 2 hours. 4 points. Professors C. P. WIMMER, F. D. LASCOFF, and visiting lecturers and instructors.

This course is designed to familiarize the student with the fundamentals underlying all law and also with the general provisions of Federal and state laws governing the practice of pharmacy. The various ordinances and regulations having local application will also be studied. Special attention is given to prohibition and anti-narcotic laws and regulations.

Lectures by practical business men will be a feature of the course. This series of lectures will give the student the principles of merchandising from a business man's viewpoint rather than from that of the pedagogue. These lectures, as well as those of the regular course, are aimed to give the student a better understanding of contemporary business problems.

Pharmacy 111—Practical pharmacy—manufacturing pharmacy laboratory (for University juniors). Laboratory 13 hours for 12 weeks beginning September 18, 1933. 5 points. Professor H. M. CARTER and instructors.

This course includes the manufacture of a number of the more difficult Pharmacopœial and National Formulary preparations, as well as of inorganic and organic medicinal remedies. The work is intended to qualify students for positions in pharmaceutical manufacturing establishments.

Textbook: Wimmer, *Manufacturing Pharmacy Notes*.

Pharmacy 113—Practical dispensing pharmacy (for University juniors). Laboratory 3 hours for 12 weeks beginning September 18, 1933. 1 point. Professor H. M. CARTER and instructors.

This course embraces a thorough study of the various types of incompatibilities. A large number of prescriptions are compounded which illustrate how some incompatibilities may be avoided or overcome.

Textbooks: Diekman and Wimmer, *Incompatibilities*; Ruddiman, *Incompatibilities in Prescriptions*.

Pharmacy 151-152—Advanced pharmacy (for University seniors). Lecture 1 hour. 2 points. Professor C. P. WIMMER.

This course is devoted to a detailed study of pharmaceutical, chemical, and biological assay methods of vegetable and animal drugs, as well as of methods for their identification. It includes the newer methods employed, such as the standardization of tannin-containing drugs by the agglutination test, of saponin-containing drugs by the determination of their haemolytic indices, etc.

A portion of the lecture course is devoted to a study of essential oils, while especial emphasis is laid upon official oils. Those of importance in the essential oil industry are included.

In a series of seminars, students are required to prepare and present before the professors and instructors in the department, papers on current topics of interest pertaining to pharmaceutical and allied sciences.

Textbooks: Fuller, *Analysis of Drugs and Medicines*; U. S. Pharmacopœia; National Formulary V; Gildemeister and Hoffman, *The Volatile Oils*.

Pharmacy 153-154—Pharmaceutical assaying (for University seniors). Laboratory 29 hours for 8 weeks beginning January 22, 1934. 7 points. Professors C. P. WIMMER, H. M. CARTER, and instructors.

This course is intended to prepare the student for work as a drug analyst. The entire class carries out a proximate analysis of a vegetable drug. Individual problems in assay work of the most varied and difficult kind are assigned and the student is, to a considerable extent, left to his

own resources. The work embraces assays of galenicals, flavoring extracts, toiler preparations, cosmetics, medicinal gauzes, etc.

Textbooks: Fuller, *Analysis of Drugs and Medicines*; Nelson, *Introduction to the Analysis of Drugs and Medicines*; *Current Literature*.

CULTURAL COURSES

English 1-2—English (for University freshmen). Lectures and recitations 4 hours. 8 points. Mr. G. D. McJIMSEY.

This course aims to give collegiate instruction in the fundamentals of structure and style in both practical and imaginative writing.

History 1-2—American history (for University freshmen). Lectures and recitations 3 hours. 6 points. Mr. D. R. BEDFORD.

After a brief survey of the planting of the English colonies in America, attention is centered on the revolt from British control, the political organization of the new nation, the rise of sectional controversy, and the war for Southern independence. Special emphasis is placed on the economic and social tendencies of the period since 1870.

Texts: Muzzey, *The United States of America*, Vol. I; Fox, *Atlas of American History*.

German 51-52—German (for University sophomores). Lectures and recitations 4 hours. 8 points. Mr. A. H. INGENHUETT.

This course in elementary German is designed to familiarize students with the essentials of grammar. Reading will constitute a large part of the work of the course, so as to enable students to read at sight easy German prose. Exercises in elementary composition and colloquial practice are introduced from the beginning.

English 51-52—Survey of English literature (for University sophomores). Lectures and recitations 2 hours. 4 points. Mr. G. D. McJIMSEY.

The aim of this course is to offer a survey of English literature. This is accomplished, not by a study of literary history, but by an intensive examination of important specimens of literary art. Representative masterpieces in poetry, prose, fiction and drama from each period of English literature will be carefully read and freely discussed.

Zoölogy 51-52—Zoölogy (for University sophomores). Lecture 1 hour, laboratory 2 hours. 4 points. Dr. A. W. POLLISTER.

A brief survey of the general principles of zoölogy and of the taxonomy, structure, physiology, and development of some of the chief groups of animals. The behavior and structure of representative types are studied in the laboratory by means of microscopic and macroscopic observations, dissections, and demonstrations. Special emphasis is placed upon vertebrates as types closely resembling man.

Mathematics 51—Algebra (for University sophomores). 3 hours. 3 points. Winter Session. Mr. D. SOLE.

Mathematics 52—Trigonometry (for University sophomores). 3 hours. 3 points Spring Session. Mr. D. SOLE.

Similar to *Mathematics 101-102* described below.

Mathematics 101—Algebra (for University juniors). 3 hours. 3 points Winter Session. Mr. G. D. McJIMSEY.

This course begins with a review of selected topics from elementary algebra and then treats of permutations and combinations, determinants with applications to the solution of linear equations, complex numbers, theory of equations, with reference to the solution of numerical equations of higher degree and partial fractions.

Mathematics 102—Trigonometry (for University juniors). 3 hours. 3 points Spring Session. Mr. G. D. McJIMSEY.

The subject matter of this course includes the trigonometric functions, relations between the functions, functions of several angles, inverse functions, trigonometric equations, logarithms, and the solution of triangles.

Bibliography 151-152—Pharmaceutical bibliography (for University seniors). Lectures and conferences 1 hour. 2 points. Professor C. W. BALLARD.

This course will consist of lectures on the source books of chemistry, pharmacy, botany, and cognate sciences and on the periodical literature on the same subjects. At the conferences, special themes will be assigned to each student for research during spare hours.

THE GRADUATE COURSE

A graduate course of two full years' study in residence leading to the degree of Doctor of Pharmacy (Phar.D.) is open to graduates with the baccalaureate degree, conferred by this college or other schools of pharmacy maintaining equivalent courses of study. For the present, we are able to accommodate only two students majoring in each of the Departments of Chemistry, Materia Medica, and Pharmacy. Thirty hours' study weekly is required in the department in which the student is majoring, and three hours weekly in each of the other two departments.

An itemized synopsis follows:

MAJOR SUBJECT

FIFTH YEAR

Option of Chemistry 201-202, or Materia Medica 201-202, or Pharmacy 201-202, 30 hours. 30 points. Conducted by the head of the Department or by the member of the Department staff designated by the head.

This major subject consists essentially of the research assigned to the student by the head of the Department, with weekly conferences during the progress of the work.

SIXTH YEAR

Option of Chemistry 251-252, or Materia Medica 251-252, or Pharmacy 251-252, 30 hours. 30 points. Conducted by the head of the Department or by the member of the Department staff designated by the head.

A continuation of the research work of the fifth year.

MINOR SUBJECTS

In addition to the work of major interest selected by the candidate and constituting the research course, he or she will be required to elect as "minors" one course in each of the other two departments each year, representing 3 hours weekly in each of the other departments. While each of the minor courses is an entity, the arrangement is such that a student may continue his study in the elected "minor" during his second year of residence. It is to be noted that in certain instances these continuation courses are contingent upon the election of the preceding course. These optional courses are also open to any properly qualified persons desiring to pursue them as special students.

OPTIONS

Chemistry

Chemistry 203-204—Structural organic chemistry. Lectures and conferences 2 hours. 4 points. Professor H. V. ARNY.

Chemistry 205-206—Synthesis of organic medicinal chemicals. Lectures and conference 1 hour. 2 points. Professor H. H. SCHAEFER.

Chemistry 207—Experimental organic chemistry. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professors H. V. ARNY and A. TAUB.

This course includes combustions and other organic analysis, molecular weight determinations and other such work as time permits.

Chemistry 208—Experimental organic chemistry. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor H. C. KASSNER.

This course includes the determination of radicles and of elements by methods other than combustions.

Chemistry 209—Qualitative organic analysis. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor H. C. KASSNER.

In this course, the more complex organic compounds will be identified by modern methods of analysis.

Chemistry 210—Analysis of pharmaceutical and technical products. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professors H. C. KASSNER and A. TAUB.

Instruction will be given in routine commercial methods of analysis and in the investigation of products which often confront the consulting chemist.

Chemistry 211—Practical physical chemistry. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor A. TAUB.

Instruction will be given in physico-chemical methods and in the standardization and use of physico-chemical apparatus.

Materia Medica

Materia Medica 203—Analysis and determination of cryptogamous and phanerogamous plants. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professors H. H. RUSBY and F. HART.

Materia Medica 205—Advanced bacteriology. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor F. HART.

The determination of types through special cultural and staining methods.

Materia Medica 206—Advanced bacteriology. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor F. HART.

This course is supplemental to course *Materia Medica* 205 and may only be elected by students in the sixth year who have pursued that course.

Materia Medica 207—Food microscopy. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor C. W. BALLARD.

A systematic study of the various types of foodstuffs in which adulteration can be determined by microscopical methods.

Materia Medica 208—Food microscopy. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor C. W. BALLARD.

This course is supplemental to course *Materia Medica* 207 and may only be elected by students in the sixth year who have pursued that course.

Materia Medica 210—The literature and methods of research in vegetable taxonomy. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor H. H. RUSBY.

This course can only be carried by those students in the sixth year who have elected course *Materia Medica 203* in the fifth year.

Materia Medica 211—Chemical microscopy. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor H. TAUB.

A study of the microchemical procedures involved in the use of the microscope as an aid in chemical analysis.

Materia Medica 212—Chemical microscopy. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor H. TAUB.

This course is supplemental to course *Materia Medica 211* and may only be elected by students in the sixth year who have pursued that course.

Materia Medica 213—Blood analysis. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor H. TAUB.

This course includes the microscopical and chemical procedures involved in the examination of normal and abnormal blood.

Materia Medica 215—Technical microscopy. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professors C. W. BALLARD and H. TAUB.

The application of microscopical methods to the examination of textiles, furs, papers and other commercial products.

Materia Medica 217—Parasitology. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor F. HART.

A study of the nature, identification and pathological effects induced by parasites infesting the animal body.

Materia Medica 219—Mycology. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professors C. W. BALLARD and F. HART.

The nature, identification, and changes caused by molds and allied forms in drug, food, and commercial preparations.

Pharmacy

Pharmacy 203—Manufacture and standardization of drug products. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor H. M. CARTER.

Pharmacy 204—Assay and analysis of official and non-official galenicals and other medicinal preparations. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor H. M. CARTER.

Pharmacy 205—Examination and analysis of incompatible mixtures with special reference to prescriptions. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor C. P. WIMMER.

Pharmacy 206—Essential oils, their production and composition. Lectures 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor C. P. WIMMER.

Pharmacy 207—Assay and analysis of essential oils. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor C. P. WIMMER.

Pharmacy 208—Manufacture of synthetic perfume materials. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor C. P. WIMMER.

Pharmacy 209—Examination and analysis of perfumes. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor C. P. WIMMER.

Pharmacy 210—Composition and analysis of flavoring extracts. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor C. P. WIMMER.

Pharmacy 211—Manufacture and composition of cosmetics and toilet preparations. Lectures 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor C. P. WIMMER.

Pharmacy 212—Analysis of cosmetics and toilet preparations. Conference 2 hours, laboratory 10 hours for 8 weeks. $3\frac{1}{2}$ points. Professor C. P. WIMMER.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or damaged apparatus must either be replaced or paid for by the student.

SUMMER LABORATORY COURSES 1933

First, Second, and Third Year College Classes

June 5 to June 24—Department of Chemistry.

June 26 to July 15—Department of Materia Medica.

July 17 to August 5—Department of Pharmacy.

SUMMER LABORATORY COURSES 1934

First, Second, and Third Year College Classes

June 4 to June 23—Department of Pharmacy.

June 25 to July 14—Department of Chemistry.

July 16 to August 4—Department of Materia Medica.

UNIVERSITY CLASSES

University students failing in laboratory courses will be advised by the Registrar regarding the summer laboratory schedules.

EVENING COURSES

These courses of instruction, although they cannot be substituted for any of our regular work leading to degrees, have proven of great benefit to those who cannot

attend during the day, and to those who desire to pursue special courses of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes.

Candidates may be admitted at any time during the course, at the discretion of the director of the course, but only those who have attended at least 80 per cent of all exercises and who pursue in a satisfactory manner the courses for which they are registered will receive certificates.

The courses are offered on Monday, Tuesday, and Friday of each week during the periods from Monday, October 2, 1933, to January 12, 1934, and from January 15, 1934, to Friday, May 4, 1934.

The Registrar's office will be open daily for registration from 10 a.m. to 4 p.m. and on Monday, Tuesday, and Friday evenings from 7 to 8 o'clock, during the first two weeks of each semester.

Fees are payable in advance and are not returnable. A registration fee of \$6 is required of each student in addition to the fees stated below.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

The following courses are offered:

CHEMISTRY

Evening Chemistry 1-2—Pharmaceutical qualitative analysis. Classroom 1 hour, laboratory 2 hours each semester. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:30-10:30 p.m.

Lecture: F., 7:30-8:20 p.m.

Laboratory: F., 8:30-10:30 p.m.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia.

Conditional on the enrollment of ten students.

Evening Chemistry 3-4—Pharmaceutical qualitative analysis. Classroom 1 hour, laboratory 2 hours each semester. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7-10 p.m.

Laboratory: F., 7-9 p.m.

Lecture: F., 9:10-10 p.m.

This course is a continuation of *Evening Chemistry 1-2* with particular reference to the U. S. P. tests for acid-ions.

Conditional on the enrollment of ten students.

Evening Chemistry 5-6—Pharmaceutical volumetric analysis. Classroom 1 hour, laboratory 2 hours each semester. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7-10:30 p.m.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia.

Conditional on the enrollment of ten students.

Evening Chemistry 7—Examination of urine. Lecture 1 hour, laboratory 2 hours First Semester. Fee \$25; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:15-10:30 p.m.

Lecture: F., 7:20-8:20 p.m.

Laboratory: F., 8:30-10:30 p.m.

It should be noted that to qualify for "Director" of a laboratory, as defined by the Board of Health of the City of New York, a degree at least the equivalent of a B.S. is required.

In this course the qualitative and quantitative chemical tests of normal and pathological urine are studied; also the preparation and standardization of the necessary reagents.

Conditional upon the enrollment of twenty students.

Evening Chemistry 8—Examination of urine. Lecture 1½ hours, laboratory 2 hours Second Semester. Fee \$25; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:30-10 p.m.

Lecture: F., 7:30-8 p.m.

Laboratory: F., 8:20-10 p.m.

In this course, a continuation of *Evening Chemistry 7*, the gravimetric, polariscopic, colorimetric, and microscopic examination of urine is studied.

Conditional upon the enrollment of twenty students.

Evening Chemistry 9-10—Newer remedies. Lecture 1 hour each semester. Fee \$30. Professor H. H. SCHAEFER.

F., 8:30-9:30 p.m.

The aim of this course is to give the graduate pharmacist an opportunity to become familiar with the chemistry of many "recent" remedies generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Nor only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given.

Conditional on enrollment of twenty students.

MATERIA MEDICA

Evening Materia Medica 1-2—Principles and practice of bacteriology. Lecture 1 hour, laboratory 2 hours each semester. Fee \$40 each semester; \$10 breakage deposit. Professor F. HART and assistants.

Tu., 7-10 p.m.

Lectures: 7-8 p.m. Room 42, Pharmacy.

Laboratory: 8-10 p.m.

This course includes the bacterial examination of sputum, excreta, water, air, milk, and ice.

Special attention is given to the standard methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology, and staining properties leading to the identification of the more common pathogenic bacteria.

Conditional on the enrollment of ten students.

Evening Materia Medica 3-4—Blood analysis. Lecture 1 hour, laboratory 2 hours each semester. Fee \$40 each semester. Professor H. TAUB and assistants.

M., 7-10 p.m.

Lecture: 7-8 p.m.

Laboratory: 8-10 p.m.

First semester: Preparation and study of blood smears in health and disease; total and differential counts; special pathology.

Second semester: Blood chemistry, including non-protein and urea nitrogen determinations, sugar, creatinin, uric acid, CO_2 —combining power, chlorides, calcium, cholesterol, and other constituents; hemoglobin estimation, coagulation time; establishing and operating a laboratory.

Conditional on the enrollment of ten students.

Evening Materia Medica 6—Parasitology. Lecture 1 hour, laboratory 2 hours
Second Semester. Fee \$40; \$10 breakage deposit. Professor F. HART and assistants.

Tu., 7-10 p.m.

Lectures: 8-9 p.m. Room 42, Pharmacy.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods.

Conditional on the enrollment of ten students.

Evening Materia Medica 7-8—Microbiology. Lecture and demonstration
1 hour each semester. Fee \$30. Professor F. HART.

M., 7:30-8:30 p.m.

This course includes the methods of manufacture, standardization, administration, and dosage of the commercial biological and bacteriological products and derivatives. Consideration is likewise given to the various methods of sterilization and disinfection as well as the principles of serology and immunology.

Conditional on enrollment of twenty students.

Evening Materia Medica 9-10—Pharmaceutical sundries. Lecture 1 hour each
semester. Fee \$30. Professor C. W. BALLARD.

M., 8:30-9:30 p.m.

While the retail pharmacist handles many items which are included under the general heading of sick-room supplies, he generally has little opportunity for systematic study of these articles and this is particularly true under present-day conditions. The object of this course of lectures is to acquaint him with the manufacture, differences and applications of bandaging and dressing materials, rubber sundries, glass and metal appliances, sutures and ligatures and the miscellaneous articles stocked in the average retail pharmacy and intended for physicians' or household use. The complicated and specialized types of surgical instruments and appliances will not be considered.

Conditional on enrollment of twenty students.

PHARMACY

Evening Pharmacy 1-2—Manufacturing pharmacy. Lecture 1½ hours, laboratory 1½ hours each semester. Fee \$35 each semester. Professor L. N. BROWN and assistants.

Tu., 7:30-10:30 p.m.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail.

Conditional upon the enrollment of ten students.

Evening Pharmacy 3-4—Manufacture of cosmetics and toilet preparations.
Lecture 1 hour, laboratory 2 hours each semester. Fee \$35 each semester.
Professor C. P. WIMMER and assistants.

Tu., 7:30-10:30 p.m. Main Lecture Hall.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face

powders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured.

Conditional upon the enrollment of ten students.

A summary of the lecture topics will be furnished upon request.

Evening Pharmacy 5-6—Perfume materials and perfumery. Lecture 1 hour, laboratory 2 hours each semester. Fee \$50 each semester. Professor C. P. WIMMER and assistants.

M. at 7 p.m. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprises the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included.

A summary of the course will be mailed upon request.

Conditional on the enrollment of ten students.

Evening Pharmacy 7-8—Ampuls and medicated units. Lecture 1 hour each semester. Fee \$30 entire course. Professor H. M. CARTER.

F., 7:30-8:30 p.m.

This course provides for the graduate pharmacist a thorough training in the principles of ampul medication both from the theoretical and practical viewpoints. Briefly, it considers the history, the advantages of parenteral administration, the forms and sizes of ampuls of American and foreign makes, together with the actual demonstration of ampul manufacture including glass blowing, filling, sealing, sterilization, etc. The National Formulary ampuls and products of various manufacturers are exhibited and discussed in detail paying strict attention to methods of packaging, storing and dispensing.

Conditional upon the enrollment of twenty students.

THE ALUMNI ASSOCIATION OF THE COLLEGE OF
PHARMACY OF THE CITY OF NEW YORK

OFFICERS, 1933-1934

President: HUGO H. SCHAEFER

Honorary President: ADOLPH HENNING

First Vice-President: J. H. HECKER

Second Vice-President: GUSTAVE BARDFELD

Third Vice-President: VITO CALCAGNO

Secretary: ABRAHAM TAUB

Treasurer: GEORGE C. DIEKMAN

Registrar: CURT P. WIMMER

Executive Board

F. D. LASCOFF, 1934

V. K. COMMONS, 1935

LESLIE JAYNE, 1936

HARRY TAUB, 1934

JULIAN RONSHEIM, 1935

RUDOLF HAUCK, 1936

L. N. BROWN, 1934

F. J. POKORNY, 1935

ARTHUR J. BAUER, 1936

The Alumni Association aims to promote the interests of the College and student body, and to keep the graduates of the College in touch with each other and with the activities of the College. It holds quarterly meetings jointly with the membership of the New York College of Pharmacy, at which time lectures of scientific and general interest are presented by outstanding persons. The business of the Association is conducted at the bimonthly meetings of the executive board. Several social affairs are tendered each year.

The Association sponsors Alumni Night, an evening of entertainment and awards for first and second year students, and also provides for three medals for highest scholarship in the graduating class. For details see page 25.

Annual dues are \$2.00. Life membership is \$15.00. An engrossed membership certificate is issued to members at \$1.00. All graduates are urged to join the Association and continue their contacts with their Alma Mater.

ENDOWMENTS

For one hundred and four consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler, and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and Trustees. At various times financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this Announcement, in addition to the College Course of three years, leading to the degree of Ph.G. there is now provided a University Course of four years, leading to the degree of B.S. in Pharmacy.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the College.

Since the actual instruction work of the College calls for the expenditures of our entire income received from students' fees, it follows that we are compelled, like other schools, to seek other sources of income for meeting unusual expenses.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

LIBRARY MAINTENANCE

The library facilities required by men engaged in advanced studies are necessarily much more extensive than those now provided by the College. The research work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.

APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to \$10,000 would admirably meet this demand.

MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or materia medica museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum properly comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the city and Federal departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquiries could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an encyclopedic knowledge of the subject, and qualified to pursue original researches. Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

REGISTER OF GRADUATES

PHARMACEUTICAL CHEMISTS, OCTOBER 26, 1932

Clunie, Joseph Norman New York City
Hamann, George Peter Dietrich
Brooklyn, N. Y.

(2)

GRADUATES IN PHARMACY, OCTOBER 4, 1932

Foley, Vincent Hoboken, N. J.
Plotkin, Morris Louis Newark, N. J.
Reddick, Aubert Evans New York City
Rocchio, Philip Paul Corona, N. Y.
Safarik, Joseph John Springfield, Mass.
Winokur, Emanuel Brooklyn, N. Y.
Wishner, Jacob Brooklyn, N. Y.

(7)

BACHELORS OF SCIENCE IN PHARMACY,

JUNE 1, 1932

Blythe, Rudolph H. Roxbury, N. Y.
Cook, Clayton Mein Milford, N. Y.
Fehder, Paul Jamaica, N. Y.
Mar, George Kaye Winnipeg, Canada
Pond, Frank Nelson, Jr. Douglaston, N. Y.

(5)

PHARMACEUTICAL CHEMISTS, JUNE 1, 1932

Armao, John Anthony New York City
Berg, Louis New York City
Brown, Reginald C. Yonkers, N. Y.
Burch, Collingwood Vincent

St. Georges, Bermuda

Chasanowitz, Bernard Corona, N. Y.
D'Orazio, Robert Romeo New York City
Dorr, Elinor Utley St. George, N. Y.
Freedman, Samuel New York City
Gain, Ethel Annie Louise Jeffersonville, N. Y.
Ginsbergh, Rubin Robert New York City
Givens, Johnson B. Freehold, N. J.
Heiko, Harold New York City
Hoeler, William J. Newark, N. J.
Hoffman, Bernard William Woodhaven, N. Y.
Isacoff, Harry Brooklyn, N. Y.
Kleinsinger, Bert S. New York City
Koller, Joseph Michael New York City
Pfister, C. Leonard Brooklyn, N. Y.
Pozdena, Milton Otto Winfield, N. Y.
Sasnor, Ernest Jackson New York City
Sher, Philip Benjamin Brooklyn, N. Y.
Silver, Jason Harold Mount Vernon, N. Y.
Silver, Sidney New York City
Vigilante, Ovidio Carl Corona, N. Y.
Wight, Christian Frank Bethel, Conn.
Zilotto, Enrico Richmond Hill, N. Y.
Zlinkoff, Bernard Welch New York City

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GRADUATES IN PHARMACY, MAY 26, 1932

Anopol, Annie New York City
Aponofsky, Anna Little Neck, N. Y.
Avignone, Carlo James Massapequa, N. Y.

Badagliacca, Vincent Anthony

Brooklyn, N. Y.
Barbera, Anthony Joseph Brooklyn, N. Y.
Bashevkin, Isaac Brooklyn, N. Y.
Becker, Sidney Simon Brooklyn, N. Y.
Belinsky, Benjamin New York City
Belitz, Morris New York City
Beller, Louis Astoria, N. Y.
Berkowitz, Efreml Leslie Brooklyn, N. Y.
Bittar, Dewey Brooklyn, N. Y.
Blick, Richard Brooklyn, N. Y.
Bologh, Sidney David New York City
Burton, Samuel Brooklyn, N. Y.
Busch, David Carlyle New York City
Caso, Attilio Arthur New York City
Chadkin, Jason Abraham Brooklyn, N. Y.
Chernow, Jack Brooklyn, N. Y.
Chu, Kang New York City
Cohen, Benjamin New York City
Colarusso, Thomas G. Mount Vernon, N. Y.
Coller, Gertrude Ethel
West New Brighton, N. Y.
Coller, Pearl West New Brighton, N. Y.
Cosenza, Salvatore Brooklyn, N. Y.
Cowan, John Wesley Mamaroneck, N. Y.
Cuzzolino, Sylvia Rafaela New York City
D'Arco, George Daniel Brooklyn, N. Y.
De Angelis, Dominick Frances

Brooklyn, N. Y.
Diecidue, Ignatius Brooklyn, N. Y.
Doctors, Albert Corona, N. Y.
Emrich, Ralph James

West New Brighton, N. Y.

Erwich, Irving Harold Corona, N. Y.

Febbraio, Edmund New York City

Feinberg, Louis Julius Brooklyn, N. Y.

Feitelberg, Morton New York City

Florentino, Anthony Louis Brooklyn, N. Y.

Friedman, Oscar Jersey City, N. J.

Fromm, Kate New York City

Gershkowitz, Louis Brooklyn, N. Y.

Glaser, Herman Brooklyn, N. Y.

Glaser, Jacob Julius New York City

Glick, Esther Henrietta Central Valley, N. Y.

Glutzer, Isadore George New York City

Gnaizda, Samuel Joseph Brooklyn, N. Y.

Goldberg, David Brooklyn, N. Y.

Goldberg, Isidore George Brooklyn, N. Y.

Goodrich, Minnie New York City

Gordon, Jacob Brooklyn, N. Y.

Granet, Morris Brooklyn, N. Y.

Greenfield, Benjamin New York City

Grenadir, Hyman David Brooklyn, N. Y.

Guatery, Peter Joseph Middletown, N. Y.

Gulli, Antoinette Rita Brooklyn, N. Y.

Gumer, Max Simon Rochester, N. Y.

Haber, Alexander Charles New York City

Handsman, Harry Lerner Brooklyn, N. Y.

Harris, Harry New York City

Heiden, Eugenia New York City

Heller, John Andrew Paul Poughkeepsie, N. Y.

Henkin, Bernard New York City

Homnik, Jacob New York City

Hostomsky, Edward East Elmhurst, N. Y.

Izenberg, Leo	Patterson, N. J.	Richman, Alexander	Brooklyn, N. Y.
Jacobs, Frank	Brooklyn, N. Y.	Rosen, Abraham	New York City
Jones, Herbert Herman	Union City, N. J.	Rosenberg, Hyman Fred	New York City
Kaplan, Jacob	Pittsfield, Mass.	Rosenberg, Mandel	Middle Village, N. Y.
Kessler, Nathan	Yonkers, N. Y.	Roshkovsky, Jack	Brooklyn, N. Y.
Ketcham, George Vanderbilt	Northport, N. Y.	Rovira, Frank	Pátillas, Puerto Rico
Kirschenbaum, Samuel	New York City	Ruggiero, William E.	Manhasset, N. Y.
Koretsky, Fanny	New York City	Saks, Joseph Herman	Brooklyn, N. Y.
Kristal, Michael	New York City	Salmeri, Frances Mary	Brooklyn, N. Y.
Kross, David Theodore	Brooklyn, N. Y.	Schansinger, Benjamin	Middle Village, N. Y.
Le Blanc, Milton	Middle Village, N. Y.	Schloss, Max	New York City
Levy, Julius	Hoboken, N. J.	Schnaer, Abraham Isador	Brooklyn, N. Y.
Levy, Sarah Ida	Union City, N. J.	Schweig, Harry Karl	New York City
Lubin, Sydney Wellsworth	Brooklyn, N. Y.	Simon, Isidore	Brooklyn, N. Y.
MacLennan, Daniel Grant	Manhasset, N. Y.	Simon, Samuel	New York City
Maduri, Elizabeth Virginia	Brooklyn, N. Y.	Singer, Frank	New York City
Mahler, Henry	New York City	Soikin, David	New York City
Mavrogiannis, John George	New York City	Starman, Arthur Abraham	Utica, N. Y.
Messina, Anthony Pasquale	New York City	Stein, Abraham	Brooklyn, N. Y.
Milchman, David	Brooklyn, N. Y.	Steinhauer, Bernard	Brooklyn, N. Y.
Mufson, Morris	Passaic, N. J.	Ticktin, George Beverley	Toronto, Canada
Naliboff, Edward Murray	New York City	Troisi, Mario Philip	New York City
Namiat, Morris	New York City	Trovato, Michael Alexander	Corona, N. Y.
Nardoza, Joseph Salvatore	Hoboken, N. J.	Umlas, Isidore	Brooklyn, N. Y.
Nelson, R. Lewis	Bowling Green, Ky.	Unger, Bernard	New York City
Newman, Percy	North White Lake, N. Y.	Villone, Anna Rose	New York City
Novendstern, David	Jersey City, N. J.	Wagner, Morris	New York City
O'Connor, Harry Joseph	East Elmhurst, N. Y.	Waugh, Theodore	Middle Village, N. Y.
Padnis, Nathan	New York City	Weiss, Stanley Daniel	New York City
Paley, Irving Benedict	Brooklyn, N. Y.	Werst, Francis Bernard	Union City, N. J.
Parrini, Arthur Thomas	Brooklyn, N. Y.	Wishny, Gilbert	New York City
Pavone, Edigio	New York City	Wohl, Benjamin	New York City
Peretzweig, Samuel	Brooklyn, N. Y.	Woien, David	New York City
Pfeffer, Alfred	New York City	Wunsh, Theodore Eugene	New York City
Photoglou, George Michael	New York City	Yarvis, Samuel	Brooklyn, N. Y.
Pjnick, Nathan	Passaic, N. J.	Youran, Morris	New York City
Posner, Murray William	New York City	Zeichner, Harold	New York City
Pucillo, Nataleen Virginia	Tuxedo Park, N. Y.	Zuckerman, Abraham	New York City
Rabinowitz, Ephroim	New York City	Zykorie, Emil	Brooklyn, N. Y.
Rand, George	New York City	(142)	

REGISTER OF STUDENTS, SESSION OF 1932-1933

GRADUATE STUDIES

Blythe, Rudolph H.	Roxbury, N. Y.
Cook, Clayton Mein	Milford, N. Y.
Mar, George Kaye	Winnipeg, Canada

(3)

FOURTH YEAR UNIVERSITY CLASS

Armao, John Anthony	New York City
Brown, Reginald C.	New York City
Cooper, Minor Medford	Upper Jay, N. Y.
D'Orazio, Robert Romeo	New York City
Ginsbergh, Rubin Robert	New York City
Givens, Johnson B.	Freehold, N. J.
Glockner, Abraham	Albany, N. Y.
Heiko, Harold	New York City
Hoeler, William J.	Newark, N. J.
Isacoff, Harry	Somersworth, N. H.
Kleinsinger, Bert S.	New York City
Sher, Philip Benjamin	Brooklyn, N. Y.
Silver, Sidney	New York City
Vigilante, Ovidio Carl	Corona, N. Y.

Wight, Christian Frank	Bethel, Conn.
Ziliotto, Enrico	Richmond Hill, N. Y.

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THIRD YEAR UNIVERSITY CLASS

Burger, Irving	Peekskill, N. Y.
Gabriel, Joseph, Jr.	Bridgeport, Conn.
Geller, Manuel	New York City
Gioia, Roland George	Union City, N. J.
Goldman, Isidore Charles	Riverhead, N. Y.
Granberg, Milda Otilia	Thornwood, N. Y.
Green, Alex	New York City
Gross, James Ernest	Brockton, Mass.
Kessler, Nathan	New York City
Kucker, Theodore David	Elizabeth, N. J.
Kupersmith, Libby	Leonia, N. J.
Lizio, Joseph Alfred	Long Island City, N. Y.
Lyons, Nathan	Brooklyn, N. Y.
Mende, William Charles	Clifton, N. J.
Mont, Isadore	Peekskill, N. Y.
Mucelli, Dante	New York City

Ortega y Canet, Mario de Jesus

Brooklyn, N. Y.

Peisachowitz, Jack

New York City

Pisari, Louis Anthony

Brooklyn, N. Y.

Pitocchi, Caroline Ellen

Brooklyn, N. Y.

Schneider, William Edward

Herman, Jr.
Englewood, N. J.

Seltzer, Walter Maurice

New York City

Thomas, James Grant

Wells River, Vt.

Wackstein, Morris

New York City

(24)

SECOND YEAR UNIVERSITY CLASS

Barone, Angelo Mathew

Brooklyn, N. Y.

Biamonte, Alfred Robert

Cliffside, N. J.

Garizio, John Ernest

Forest Hills, N. Y.

Godoff, Elliott

Brooklyn, N. Y.

Greenberg, William Jacob

New York City

Grotsky, Julius

Brooklyn, N. Y.

Kaplan, Joseph

Bayonne, N. J.

Levin, Julius

Englishtown, N. J.

Lifshutz, Sidney

Long Island City, N. Y.

Longyear, Robert

Livingston, Jr.
Brooklyn, N. Y.

Megna, Michael

Brooklyn, N. Y.

Mencher, Gerald William

Brooklyn, N. Y.

Pack, Isaac Menshing

Brooklyn, N. Y.

Rashmajian, Harry

Brooklyn, N. Y.

Robinson, Clara Elizabeth

Amityville, N. Y.

Siegel, Ida

New York City

Trentadue, Perer

Astoria, N. Y.

Waneski, Charles Adolph

Brooklyn, N. Y.

Whipple, Ruth Ann

White Plains, N. Y.

Wohlman, Ella

New York City

(20)

FIRST YEAR UNIVERSITY CLASS

Abarno, Frank Edward

Grantwood, N. J.

Apelhot, Sylvia Peggy

Union City, N. J.

Barnett, Herbert

Brooklyn, N. Y.

Birnbaum, Florenz Samuel

Jamaica, N. Y.

Blumberg, Bernard Lee

New York City

Bootz, Paul Peter

Mocanaqua, Pa.

Calta, Robert

Pleasant Plains, N. Y.

Cassidy, Margaret Mary

New York City

D'Ambrosio, Vera

New York City

De Luca, Anthony

Brooklyn, N. Y.

Dichter, Emanuel

New York City

Friermor, Louis

Brooklyn, N. Y.

Greenberg, Irving

Brooklyn, N. Y.

Greenzeig, Stanley J.

Brooklyn, N. Y.

Gulesich, John Joseph

New York City

Henner, Sidney

New York City

Jones, William Henry

Stamford, Conn.

Leuci, Alfred Anthony

Flushing, N. Y.

Luciano, Nick Paul

New Canaan, Conn.

Mabardie, Alexander Ameen

Paterson, N. J.

Mercuri, Albert George

Brooklyn, N. Y.

Rafalowicz, Harry Philip

Brooklyn, N. Y.

Richman, Edward

Brooklyn, N. Y.

Ruchames, Max

New York City

Sands, Frederic Chase

Bronxville, N. Y.

Siegmeister, Howard William

Pelham Manor, N. Y.

Tringali, Matthew Lion

Brooklyn, N. Y.

Turk, Irving

Brooklyn, N. Y.

Weinstein, Morton

New York City

Wishniefsky, Nathan

Monticello, N. Y.

Zweig, Samuel

New York City

(31)

THIRD YEAR COLLEGE CLASS

Adler, Nathan

Stapleton, N. Y.

Alward, James Carleton

Port Jervis, N. Y.

Anderson, Lloyd

Verona, N. J.

Antman, Herbert Robert

Brooklyn, N. Y.

Armentano, Joseph Lawrence

Jackson Heights, N. Y.

Baker, Samuel David

Tompkinsville, N. Y.

Baumgarten, Harry

Brooklyn, N. Y.

Bazilian, Jacob

Brooklyn, N. Y.

Beadle, Kenneth Gumaer

Kingston, N. Y.

Bennett, Frank

Greenwich, Conn.

Bernstein, Moses

New York City

Bloom, David Alfred

Norwich, Conn.

Bologh, Joseph

New York City

Borofsky, Julius

New York City

Burano, John Ernest

New York City

Byron, Grace Marie

Queens Village, N. Y.

Casey, Charles B.

Washingtonville, N. Y.

Cerciello, Louis Joseph

Jersey City, N. J.

Chu, James Hing

New York City

Cohen, Elias

New York City

Cohen, Hymen

New York City

Cohen, Joseph

New York City

Cooper, Morris Sredna

New York City

Davis, David

Brooklyn, N. Y.

Dobroskin, George

New York City

D'Onofrio, Rocco Elias

Syracuse, N. Y.

Edghill, Kenneth

New York City

Englander, Milton

New York City

Feeney, William James

Ozone Park, N. Y.

Feldman, Philip Jesse

Mount Vernon, N. Y.

Fish, Elias

Brooklyn, N. Y.

Fisher, Arthur Samuel

New York City

Fleisch, Wolf

New York City

Friedman, Hyman

Brooklyn, N. Y.

Friedman, Michell

Ozone Park, N. Y.

Furman, Marcus

Brooklyn, N. Y.

Gammer, Irving

New York City

Gettleman, Carl

New York City

Gevirtz, Hyman Julius

Brooklyn, N. Y.

Giuliano, Armida

New York City

Gold, Alex

Rocky Hill, Conn.

Goldstein, Maurice

Hightstown, N. J.

Gomez, Augusto

New York City

Goodkin, Harry

New York City

Gorerzky, Israel

Brooklyn, N. Y.

Grassi, Julius Caesar

Newburgh, N. Y.

Green, William

New York City

Greenbaum, Jack

New York City

Guberman, Louis

New York City

Gzibeck, Samuel

Jackson Heights, N. Y.

Horowitz, David

Staten Island, N. Y.

Kagle, Arthur

New York City

Kahner, Paul

New York City

Kaplan, Leo

New York City

Kasday, Julius

Corona, N. Y.

Katz, Philip

Corona, N. Y.

Kimber, George Henry

Fayetteville, N. Y.

Kluge, Sol Joseph

New York City

Koblin, David Charles

Nyack, N. Y.

Koller, John Andrew

New York City

La Rocca, Frank	New York City	Aumenta, Patrick	Jersey City, N. J.
Lazar, Nathan	Brooklyn, N. Y.	Auriemma, Joseph James	Jersey City, N. J.
Lefkowitz, Leo	New York City	Bellanca, Edi	Brooklyn, N. Y.
Lettieri, Nunzi	Brooklyn, N. Y.	Binder, Israel	New York City
Levine, Sidney Gerald	New Egypt, N. J.	Blackman, Edward Harold	New York City
Levy, Morris	Brooklyn, N. Y.	Brodkin, Jacob	Jackson Heights, N. Y.
McCaffrey, Edward Francis	New Hartford, N. Y.	Caruso, Anthony	Brooklyn, N. Y.
Maggio, Michael	New York City	Cassidy, William Francis	Newburgh, N. Y.
Marchese, Justin Robert	New York City	Cerreta, Louis	New York City
Marcus, Fred	New York City	Ciccotto, Louis Joseph	New York City
Mariani, Yolanda	New York City	Clott, Samuel	Jersey City, N. J.
Marturano, Philip Samuel	Rome, N. Y.	Cohen, Jacob	New York City
Mazlish, Abraham	Jersey City, N. J.	Cohen, Louis	New York City
Messina, Joseph	New York City	Cohen, Noah	Brooklyn, N. Y.
Milkowitz, Motris	Brooklyn, N. Y.	Connelly, Arthur George	Union City, N. J.
Miller, Alfred	Staten Island, N. Y.	Covert, Edward Vail	Newburgh, N. Y.
Mintzer, Nathan	Richmond Hill, N. Y.	Daniels, Samuel	New York City
Mitchell, Harry	New York City	Deitchman, Joseph	New York City
Moskoff, Joseph William	New York City	Denn, Herbert Paul	Paterson, N. J.
Ostrofsky, Isidore	Brooklyn, N. Y.	de Pedro, Reinaldo	New York City
Pink, Abraham	Passaic, N. J.	Di Pasquale, Italo	Brooklyn, N. Y.
Plutchok, Nathan	Passaic, N. J.	Donner, Joseph	New York City
Price, Sybil Louise	Corona, N. Y.	Dresner, Max William	New York City
Pushkin, George David	New York City	Ennico, Louis Edward	New York City
Raich, George Alfred	Kew Gardens, N. Y.	Epstein, Hyman Julius	Brooklyn, N. Y.
Raskin, Nathan	New York City	Epstein, Morris	New York City
Rauch, Irving Herbert	New York City	Fader, Arnold	New York City
Reid, Norman Frederick	Elmhurst, N. Y.	Falevitch, Max	New York City
Rose, Herbert	Highland Falls, N. Y.	Fanto, Earl James	Fairfield, Conn.
Rosenblatt, Raphael	New York City	Felberbaum, Alfred Samuel	New York City
Sampson, James Harris	Baltimore, Md.	Feldman, David Irving	New York City
Santorielo, Nicholas Michael	Brooklyn, N. Y.	Fleming, Patrick Joseph	Brooklyn, N. Y.
Sarner, Samuel	New York City	Fortunato, Vincent	Bay Shore, N. Y.
Schneller, Michael	New York City	Freilich, Jacob	New York City
Scholefield, Lewis J., Jr.	Beacon, N. Y.	Fried, Max	New York City
Shahon, Alexander	Brooklyn, N. Y.	Friedman, Bernard	Brooklyn, N. Y.
Siegel, Abraham Jacob	Syracuse, N. Y.	Fulladosa, Joseph Anthony	St. George, N. Y.
Spanuello, Charles	New York City	Gildenberg, Leon Philip	New York City
Spiegel, Martin	Arverne, N. Y.	Gold, Harry	New York City
Stack, Irving	New York City	Gordon, Philip	Phoenicia, N. Y.
Strassfeld, Solomon	New York City	Gordon, Sidney	New York City
Tropia, Joseph	New York City	Gura, Theodore	New York City
Truyol, Josefina	Guyama, Puerto Rico	Haff, John Floyd	Amityville, N. Y.
Truyol, Rafaela	Guyama, Puerto Rico	Handel, Richard	New York City
Valenti, Anthony Sauro	Brooklyn, N. Y.	Herbst, Joseph Paul	New York City
Vernava, Anthony	New York City	Hill, William De Witt, Jr.	New Brighton, N. Y.
Vinci, Thomas Lawrence	East Portchester, Conn.	Honigberg, Augusta Olga	Astoria, N. Y.
Wait, Gretchen	Newburgh, N. Y.	Jerome, Peter Ralph	Long Island City, N. Y.
Wallach, Lawrence	New York City	Kaminsky, Israel	New York City
Walter, Henry Carl	Kew Gardens, N. Y.	Kaplan, Harold	New York City
Weinstein, Louis	New York City	Karz, Abraham	New York City
Weissman, Theodore	Long Branch, N. J.	Katzman, George	New York City
Wexler, Jacob	Syracuse, N. Y.	Keylin, Sidney	New York City
Whitney, Edward Harold	Newburgh, N. Y.	Kline, Harold	Wilkesbarre, Pa.
Wolfe, Solomon	Brooklyn, N. Y.	Klugman, Harry	New York City
Wolff, Max	New York City	Kopinsky, Samuel	Brooklyn, N. Y.
Wolinsky, William Jack	Rutland, Vt.	La Scala, Vincenza Helene	New York City
Zauderer, Isidor	New York City	Leibowitz, Oscar Edward	New Haven, Conn.
(118)		Lerner, Abraham Samuel	New York City
		Lesser, Harold Joseph	New York City
		Locurto, William Peter	Brooklyn, N. Y.
		Lomazoff, Benjamin	Brooklyn, N. Y.
		Lo Parco, Americo Emanuel	Hawthorne, N. Y.
		Luchen, Sydney	Brooklyn, N. Y.
Arida, William Robert	Brooklyn, N. Y.	Lutwick, Samuel	Brooklyn, N. Y.
Asher, Arthur Howard	Brooklyn, N. Y.	Meyerson, Solomon	Brooklyn, N. Y.

SECOND YEAR COLLEGE CLASS

Miklean, Eli	New York City	Block, Mildred Beatrice	New York City
Miller, Esther	Kingston, N. Y.	Boccia, Thomas	Corona, N. Y.
Minisohn, Sydney Wolfe	Maspeth, N. Y.	Bodow, Ephraim Mandell	Syracuse, N. Y.
Modero, Patrick	Hoboken, N. J.	Bonasera, John	Elmhurst, N. Y.
Murray, William Augustus	Cold Spring, N. Y.	Bresler, Minna Isadora	New York City
Needleman, Louis	Brooklyn, N. Y.	Buchberg, Gazella Deborah	New York City
Ossias, Sidney	New York City	Casola, Albert J.	Long Island City, N. Y.
Pape, Emil Thomas	Woodside, N. Y.	Cleaves, Irvin Donald	Patchogue, N. Y.
Pisetzner, Sophie	New York City	Cocozza, Ovid T.	Yonkers, N. Y.
Podolsky, Mortimer	New York City	Cohen, Solomon	New York City
Pomerantz, George	New York City	Coller, Miriam	West Brighton, N. Y.
Puma, Louis	New York City	Collins, Thomas Michael	New Brighton, N. Y.
Rafferty, William Edward		Cooper, Samuel	New York City
	Highland Falls, N. Y.	De Ianni, Arthur	New York City
Raymen, Morris	New York City	De Leo, Vincent Francis	New York City
Realì, Theodore	New York City	Drucker, Arthur	Brooklyn, N. Y.
Reichman, Albert Leon	Stapleton, N. Y.	Dumont-Belzil, Sister Marie	Celina
Reiter, Saul	Harrisburg, Pa.		New York City
Renda, William	Brooklyn, N. Y.	Farias, Remo	New York City
Renzulli, Vincent James	Jersey City, N. J.	Friedman, Boris A.	New York City
Ristaino, Ralph Anthony	Jersey City, N. J.	Godlin, Henry	Woodbourne, N. Y.
Rivellese, Vincent Anthony		Goldberg, Julius	New York City
	Long Island City, N. Y.	Goldberg, Marvin	New York City
Rudick, Gertrude	New York City	Goldenstein, Jacob	New York City
Sabino, James John	New York City	Gomerlinger, Leo James	Brooklyn, N. Y.
Sakofsky, Harold Solomon	Florida, N. Y.	Goodman, David	Brooklyn, N. Y.
Samuels, Charlotte	New York City	Gottlieb, Louis	Brooklyn, N. Y.
Schneir, Moe	Brooklyn, N. Y.	Grynfeld, Aron	New York City
Schwartz, Aaron	Woodside, N. Y.	Gundersen, Harry	Brooklyn, N. Y.
Schwartz, David	New York City	Hoar, Charles Manning	Suffern, N. Y.
Schwartzberg, Solomon	Brooklyn, N. Y.	Hochberg, Moe	New York City
Siegal, Isidore	New York City	Hoffman, Samuel	Astoria, N. Y.
Siegel, Nathan	Woodhaven, N. Y.	Ichkowitz, Irving Bernard	Flushing, N. Y.
Siegel, Philip	Woodhaven, N. Y.	Kagle, Louis	New York City
Silverman, Sam	Jersey City, N. J.	Kaliski, Ira Samuel	Jamaica, N. Y.
Soled, Samuel	Jersey City, N. J.	Krakower, Maurice Sylvester	New York City
Spanier, Henry	Brooklyn, N. Y.	Kromnick, Isidore	Brooklyn, N. Y.
Starr, Joseph	Brooklyn, N. Y.	Kross, Jay Alan	Brooklyn, N. Y.
Stecher, Emanuel	Brooklyn, N. Y.	Kubetz, Henry Bruce	Bedford Hills, N. Y.
Stein, Nathan	Brooklyn, N. Y.	Lazarus, Harold T.	Brooklyn, N. Y.
Stillman, David	New York City	Lebbed, Nathan	New York City
Streiffer, S. Harold	New York City	Lederman, Samuel	New York City
Sutler, Daniel Davis	South Norwalk, Conn.	Leffer, Robert Myles	Monticello, N. Y.
Sullivan, John Lorenzo		Lemberg, Herman	New York City
	North Brookfield, Mass.	Lessinger, Esther	Yonkers, N. Y.
Tanenbaum, Benjamin	New York City	Levine, Isidore	Brooklyn, N. Y.
Taylor, Harold Lewis	New York City	Lewin, David	Jersey City, N. J.
Tucker, Henry	Bayonne, N. J.	Liekerman, Sam	Brooklyn, N. Y.
Wagman, Jacob	New York City	Lipkind, Morris Jacob	New York City
Wasserman, Milton J.	Brooklyn, N. Y.	Lizzi, William Michael	Brooklyn, N. Y.
Wein, Reuben	New York City	Meyer, Gilbert	New York City
Weintraub, Herman	New York City	Miller, Manuel	New York City
Wilensky, Joseph	Brooklyn, N. Y.	Mitchell, Walter Lawrence	New York City
Wright, William George	Newburgh, N. Y.	Monestersky, Isidore	Brooklyn, N. Y.
Wrobel, Morris	Brooklyn, N. Y.	Morris, Maurice David	Arverne, N. Y.
Ya Deau, William Earl	Palisade Park, N. J.	Myers, Harry Glendon	Northport, N. Y.
Yakimoff, Frank Sheer	Katonah, N. Y.	Nemiroff, Samuel	Port Washington, N. Y.
(122)		Nemzer, Sidney	New York City
FIRST YEAR COLLEGE CLASS		Neshamkin, Mortimer Seymour	New York City
Adler, Jacob	Brooklyn, N. Y.	Nishanian, John	New York City
Bellanca, Mirthe	Brooklyn, N. Y.	Oakley, Maurice James Briarcliff Manor, N. Y.	
Berkowitz, Beatrice	Brooklyn, N. Y.	Orzano, Mary	Oceanside, N. Y.
Berman, Morris Victor	Brooklyn, N. Y.	Paris, Theodore William	Brooklyn, N. Y.
Bezouska, William	Astoria, N. Y.	Passamonti, Anthony Philip	Brooklyn, N. Y.
Bidetti, James	New Rochelle, N. Y.	Photoglou, Nicholas Michael	New York City
Blank, Max	New York City	Pillitteri, Frances Rosali	Lakewood, N. J.

Pope, Horatio Millington	Old Greenwich, Conn.	Stepper, Daniel	Jackson Heights, N. Y.
Rashkind, Julian	Jamaica, N. Y.	Stitelman, Milton	New York City
Richman, Jack	Brooklyn, N. Y.	Thompson, William	New York City
Rinaldi, Gaetano Nicholas	New York City	Thorne, Harry Seymour	Newburgh, N. Y.
Rose, Leon	Highland Falls, N. Y.	Ticktin, Murray Norman	West Toronto, Canada
Rosen, Leo	New York City	Tischelman, Joseph	New York City
Scheinkopf, Joseph M.	New York City	Trauner, Lester	New York City
Shapiro, Charles	New Brunswick, N. J.	Weinfeld, Milton	Brooklyn, N. Y.
Siegal, Louis	New York City	Weiss, Emil	New York City
Silverman, Irwin Phillip	Brooklyn, N. Y.	White, William Thomas	New York City
Simpson, Aubrey Raymond	Long Island City, N. Y.	Winicur, David	New York City
Stefanelli, Anthony Stephen	Ozone Park, N. Y.	Zuckman, Samuel Bernard	New York City
Stein, Mischa J.	Brooklyn, N. Y.	(97)	

SYNOPSIS OF UNIVERSITY COURSE STUDIES

SUBSEQUENT TO THE SESSIONS OF 1931-1932

First Year, 1933-1934 (see page 29)

Second Year, 1933-1934 (see page 29)

Third Year (beginning with the session of 1934-1935)

	Class Hours	Laboratory Hours	Points
Organic chemistry	3	0	6
Analytical chemistry (volumetric and gravimetric, including pharmacopœial assaying)	0	18 ¹	9
Macroscopic pharmacognosy	1 ¹	2 ¹	2
Human physiology and first aid	2½	0	5
Bacteriology	2 ¹	4 ¹	4
Theory of pharmacy	2	0	4
Pharmaceutical Latin	1	0	2
Dispensing pharmacy	2	6 ¹	5
Manufacturing pharmacy	0	4 ¹	2
Pharmaceutical economics	1	2	4
German	2	0	4

Fourth Year (beginning with the session of 1935-1936)

Organic chemistry laboratory	0	6 ¹	3
Drug assaying and urinary analysis	0	12 ¹	6
Theories of chemistry	1	0	2
Biochemistry	1	0	2
Materia medica	4	0	8
Toxicology and posology	1½	0	3
Medical appliances	1 ¹	0	1
Microscopic pharmacognosy	1 ¹	3 ¹	2½
Advanced physiology	1	0	2
Pharmaceutical jurisprudence and economics	1½	0	3
Manufacturing pharmacy	0	11 ¹	5½
Theoretical and practical dispensing pharmacy	1	2	3
Theoretical pharmacy	3	0	6

¹During 16 weeks.

ACADEMIC CALENDAR

1933

- June 5-August 5 Summer Laboratory Courses.
 September 6-8 Registration for first year candidates.
 5-8 Supplementary Examinations.
 13-14 Registration for second, third, and fourth year candidates.
 18 Monday. One hundred and fourth session begins. First, third, and fourth year classes assemble 9 a.m.
 19 Tuesday. Second year classes assemble 9 a.m.
 October 2 Monday. Evening courses start.
 November 7 Tuesday. Election Day, holiday.
 23 Thursday, to November 25, Saturday, inclusive. Thanksgiving holidays.
 December 20 Wednesday, to

1934

- January 2 Tuesday, inclusive. Christmas holidays.
 3 Wednesday. Sessions resumed.
 15-20 Mid-year examinations.
 22 Monday. Second semester, evening courses start.
 February 12 Monday. Lincoln's Birthday, holiday.
 22 Thursday. Washington's Birthday, holiday.
 March 30-31 Spring holiday.
 April 2 Monday. Last day for applying for final examinations with payment of fee for all classes.
 May 4 Friday. Evening courses close.
 7-14 Final examinations for first, second, and third year College and University classes.
 14-16 Final examinations for senior University class.
 23 Wednesday. Alumni Day.
 24 Thursday. College Commencement.
 June 5 Tuesday. University Commencement.

SCHEDULE OF EXAMINATIONS

SUPPLEMENTARY EXAMINATIONS

First Year College and University Classes

1933

- September 5 Tuesday, 9-12, *Phr.* 1-2, Pharmacy.
 6 Wednesday, 9-12, *Chm.* 3-4, Chemistry.
 Wednesday, 2-5, *Chm.* 1-2, Physics.
 7 Thursday, 9-12, *M.M.* 1-2, Botany.
 Thursday, 9-12, *M.M.* 5-6, Posology.
 Thursday, 2-5, *Eng.* 1-2, English.
 Thursday, 2-5, *Hist.* 1-2, American history.

Second Year College and University Classes

- September 5 Tuesday, 9-12, *Phr.* 51-52, Theoretical pharmacy.
 Tuesday, 2-5, *Phr.* 61-62, Commercial pharmacy.
 6 Wednesday, 9-12, *Chm.* 55-56, Inorganic chemistry.
 Wednesday, 2-5, *Phr.* 53-54, Pharmaceutical Latin.
 7 Thursday, 9-12, *M.M.* 57-58, Physiology.
 Thursday, 9-12, *M.M.* 59-60, Microbiology.
 Thursday, 2-5, *Ger.* 51-52, German.

Third Year College and University Classes

- September 5 Tuesday, 9-12, *Phr.* 101-102, Theoretical pharmacy.
 Tuesday, 2-5, *Phr.* 107-108, Dispensing pharmacy.
 Tuesday, 2-5, *Math.* 101-102, Mathematics.
 6 Wednesday, 9-12, *Chm.* 103-104, Organic chemistry.
 Wednesday, 2-5, *Chm.* 101-102, Theories of chemistry.
 Wednesday, 2-5, *Chm.* 107-108, Newer remedies.
 7 Thursday, 9-12, *M.M.* 101-102, Materia medica.
 Thursday, 2-5, *M.M.* 103-104, Toxicology.
 Thursday, 2-5, *M.M.* 109-110, Pharmacal sundries.
 8 Friday, 9-12, *Phr.* 109-110, Jurisprudence and business pharmacy.

Fourth Year University Class

- September 5 Tuesday, 2-5, *Phr.* 151-152, Advanced pharmacy.
 6 Wednesday, 9-12, *Chm.* 153-154, Food analysis and toxicology.
 Wednesday, 2-5, *Chm.* 151-152, Inorganic quantitative analysis.
 Wednesday, 2-5, *Chm.* 155-156, Biological chemistry.
 7 Thursday, 9-12, *M.M.* 155-156, Physiology.

MID-YEAR EXAMINATIONS AND TESTS

1934

- January 15-20 A schedule of these examinations and tests will be posted on the bulletin boards. Students not in residence should consult the Registrar for information regarding them.

FINAL EXAMINATIONS

First Year College and University Classes

1934

- May 7 Monday, 9-12, *M.M.* 1-2, Botany.
 Monday, 2-5, *Chm.* 3-4, Inorganic chemistry.
 9 Wednesday, 9-12, *Chm.* 1-2, Physics.
 Wednesday, 2-6, *Phr.* 1-2, 4, 5-6, Pharmacy, arithmetic, history, and ethics.
 11 Friday, 9-12, *Eng.* 1-2, English.
 Friday, 9-12, *Hist.* 1-2, American history.

Second Year College and University Classes

- May 8 Tuesday, 9-12, *Phr.* 51-52, Theoretical pharmacy.
 Tuesday, 2-5, *M.M.* 57-58, Physiology.
 Tuesday, 2-5, *M.M.* 59-60, Microbiology.
 10 Thursday, 9-12, *Chm.* 55-56, Inorganic chemistry.
 11 Friday, 9-12, *Ger.* 51-52, German.
 12 Saturday, 9-12, *Phr.* 61-62, Commercial pharmacy.
 Saturday, 2-5, *Phr.* 53-54, Pharmaceutical Latin.

Third Year College and University Classes

- May 7 Monday, 9-12, *Chm.* 103-104, Organic chemistry.
 Monday, 2-5, *Chm.* 107-108, Newer remedies.
 8 Tuesday, 9-12, *Chm.* 101-102, Theories of chemistry.
 Tuesday, 2-5, *Math.* 101-102, Mathematics.
 9 Wednesday, 9-12, *Phr.* 103-104, Dispensing pharmacy.
 Wednesday, 2-5, *Phr.* 109-110, Jurisprudence and business pharmacy.
 11 Friday, 9-12, *M.M.* 101-102, Materia medica.
 Friday, 2-5, *M.M.* 103-104, Toxicology.
 Friday, 2-5, *M.M.* 109-110, Medical appliances and first aid.
 14 Monday, 9-12, *Phr.* 101-102, Theoretical pharmacy.

Fourth Year University Class

- May 14 Monday, 9-12, *Phr.* 151-152, Pharmacy.
 Monday, 1-4, *Chm.* 151-152, Inorganic quantitative analysis.
 15 Tuesday, 9-12, *Chm.* 153-154, Food analysis and toxicology.
 16 Wednesday, 9-5, *Chm.* 155-156, Biological chemistry.
 Wednesday, 9-5, *M.M.* 155-156, Physiology.

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